Catalyzing Transformation

Reconceptualizing Climate Resiliency Planning through Partcipatory, Community-Engaged Practices

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EXECUTIVE SUMMARY

The compounding effects of inequitable decisions, policies, and investments within urban areas has functioned to exclude, dispossess, and remove residents of low-income communities and communities of color within many cityscapes (Lipsitz, 2007; Meridian Institute, 2018). As a result of decades of disenfranchisement and disinvestment, many communities are highly vulnerable to the effects of climate change (i.e., urban flooding, heat exposure, climate gentrification) and experience challenges in adapting to and coping with continuous disaster-related threats. In risk management literature, disaster is often conceptualized in terms of (1) "risk," the likelihood of loss, (2) "hazards," the conditions posing harm, and (3) "physical infrastructure" and resources, the damage or destruction to physical entities or properties (Flanagan, Gregory, Hallisey, Heitgerd, & Lewis, 2011, p. 1).

Yet, when disaster occurs, residents in vulnerable communities often experience more than physical loss and damage. They experience a range of visceral losses in the destruction of social and emotional systems of aid that are specifically cultivated in their communities. With disaster and destruction, they lose a sense of place and belonging (Thurber & Christiano, 2017) – a marker of who they were, how they lived to support others, and why it mattered to the community's internal resilience. As highlighted in the effects of Hurricane Katrina on vulnerable communities, Lipsitz (2007) noted that while working-class Blacks in such communities were "resource-poor" due to decades of defunding and disinvestment, they, in spite of such adversities, were "network-rich" in support systems grounded in solidarities of place (p. 21). As such, city planning for climate-related risks often overlooks the interconnected functions of communities as a form of cultural capital (Yosso, 2005) and fails to acknowledge other non-tangible losses residents experience concurrently with physical loss and damage.

In attempting to recognize the effects of systematic segregation, misguided urban renewal strategies, and discrimination in specific communities, the city of Philadelphia's ("The City") Office of Sustainability ("OOS") has approached a city-wide, climate planning effort by examining the complexities of climate-related impacts at the intersection of race, gender, class, age, and abilities within communities across the city (Office of Sustainability, 2016). By examining the interlocking systems at the juncture of these identities for those communities most vulnerable to climate changes, OOS seeks to understand how injustice surfaces and experiences differ in relation, or in response to such climate-related conditions. With this examination, the office hopes to move beyond disaster-related frameworks to focus on more networked, community-driven strategies to promote climate resiliency. Yet, extreme changes in climate promise to increase risk for the city's most vulnerable neighborhoods. With this imposing threat, OOS is often caught between equitably engaging the community and addressing community vulnerabilities while tending to the City's framing of climate adaptation as part of risk management and disaster-related approaches.

Problem of Practice, Methods, and Findings

To expand framing and achieve more equitable engagement, OOS seeks to include more representatives from communities most vulnerable to climate change to effectuate broad, city-wide changes in climate adaptation planning. As such, the problem of practice for this capstone explores equitable, placed-based strategies and the factors that increase engagement from underrepresented groups in an urban setting for civic activism. Methods for this study included secondary analysis of data collected from residents of the Philadelphia neighborhood, Hunting Park, as well as qualitative, semi-structured interview data collected from various city and regional stakeholders in a city-wide,

climate resiliency scoping project. Data analyzed for core themes in relation to this problem of

practice revealed the following:

Key Findings

- City residents surveyed possess an awareness of the adverse effects of extreme weather and how such effects pose threats to community wellbeing and exacerbate economic as well as social inequities that limit residents' capacities to endure changes.

- City residents surveyed demonstrate characteristics of care and resilience through strong social ties and attachments to place that have contributed to forms of community capital that protect accumulated, place-based, cultural assets (Yosso, 2005; Thurber, 2019).

- Institutional (i.e., City and regional) stakeholders interviewed tend to communicate climate resiliency through disaster management discourses that typically obscure community narratives and reduce resident engagement (Schlosberg, n.d.).

- Responses of institutional stakeholders interviewed often situate community engagement in procedural and distributional frameworks of justice, instead of a multi-dimensional framework (procedural, distributional, recognitional, interactional, care) to protect the cultural wealth and nontangible assets of communities (Meerow, Pajouhesh, Miller, 2019; Low, 2017).

Recommendations for Seeding Change

As a result of these findings, to engage underrepresented groups in an equitable and

invested manner involves reconceptualizing the current city-planning framework toward a

strategy that entails both the recognition of past injustices (Meerow, Pajouhesh, Miller, 2019)

and leverages accumulated, non-tangible assets that have cultivated a sense of community among

residents (i.e., the social ties that serve to establish trust and reciprocity; attachments to place that

bonds residents to dwellings and neighborhoods; and community cultural wealth that highlights

the cultural knowledges, abilities, and skills among residents of communities) (Thurber, 2019;

Yosso, 2005).

As a result, to address the study's central research question of what factors increase engagement of underrepresented groups for civic activism, conclusions supported by research includes the following:

- **Emphasizing Community Cultural Wealth & Resilience for Strategic Partnerships**
  - Moving Beyond Damage-Centered Narratives & Material Intervention Frameworks for more meaningful engagement with community residents.
  - Understanding the ways in which communities have developed other forms of capital to survive and resist macro/micro forms of oppression
  - Building trust and reciprocity with community residents

- **Positioning Residents as Experts of Communities to Catalyze Ideas**
  - Placed-based & experiential learning initiatives to build resources and skills
  - Co-design community-engaged scholarship activities with residents

- **Expanding Resident Networks - Building Capacity and Collective Efficacy for Change**
  - Philadelphia Resident Leaders Community of Practice (CoP) to build power and agency
  - Resident Leaders & CoP members participation in City's Climate Adaptation Working Group for shared governance

- **Creating Inclusive Communication for Various Audiences**
  - Co-creation of resources with residents, community members, CoP members to include resident narratives, insights
  - Expand climate-adaptation discourse for inclusive, just, participatory discourse

By focusing on the above factors for a comprehensive strategy, the type of engagement that emerges stems from recognition of value and reciprocity of trust in resident experiences to co-identify issues and co-develop solutions for change. This type of engagement is more involved than one-time invitations for collaboration between city offices and residents, or material interventions (such as new buildings or structures) that may satisfy immediate needs, but do little to protect communities or reduce disparities (Thurber & Christiano, 2017). Rather, continued attention to these factors begins the development of new process for engagement that surfaces mutual respect, care, and individual as well as community wellbeing in pursuit of Philadelphia's long-term joint liberation and survival.
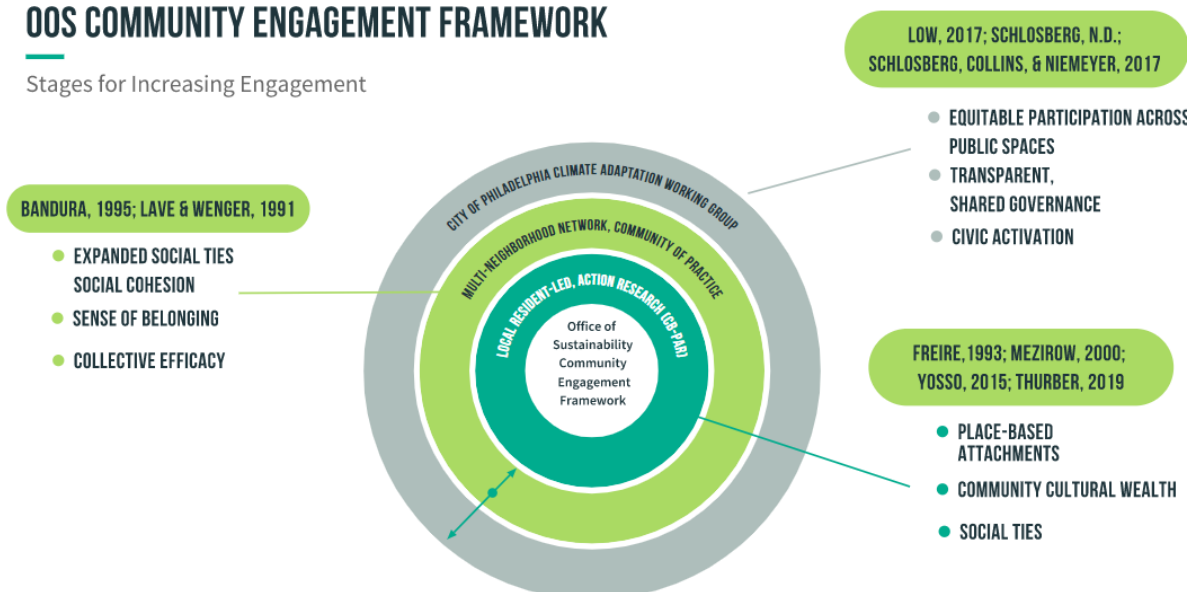
The proposed activities to support these recommendations include:

Developing a Community Engagement Framework

- Such a framework should emerge from critical, liberatory pedagogical frameworks (Freire, 1993; Mezirow, 2000) to build shared understanding of the problem among residents and City stakeholders in order to co-develop climate adaptation solutions that promote shared governance and protection of resident social ties and attachments to place. Consistent with Yosso's (2005) research, the framework is developed with residents to not only have the City remain conscious of oppressive foundations, but to include the existing cultural wealth and community care to shape the practices and activities within the framework strands.

- Building on Freire, Thurber (2019) highlighted the effectiveness of liberatory, public pedagogies as a neighborhood capacity-building strategy to engage and mobilize residents concerning the local effects of gentrification. Through resident-led research, residents were able to consult with city officials to highlight issues and propose solutions. As such, community-driven research explored ways for residents to maintain ownership of their communities and served as an entry point for resident-city collaboration on the design, operations, and programming occurring within gentrifying communities.

- Thus, the Community Engagement Framework proposed below highlights a phased approach through which residents have the opportunity to highlight community care as well as build efficacy and learning at each strand in the process to increase engagement for planning participation. Further, the framework provides an opportunity for residents to directly advise city government in planning practices through participation in the city's Climate Adaptation Workshop. By moving among the strands, residents move from "learner" and "contributor" in one direction toward "practitioner" in another direction to increase agency for change and, by extension, increase engagement to follow through on proposed changes.

OOS COMMUNITY ENGAGEMENT FRAMEWORK

Stages for Increasing Engagement

LOW, 2017; SCHLOSBERG, N.D.; SCHLOSBERG, COLLINS, & NIEMEYER, 2017
- EQUITABLE PARTICIPATION ACROSS PUBLIC SPACES
- TRANSPARENT, SHARED GOVERNANCE
- CIVIC ACTIVATION

BANDURA, 1995; LAVE & WENGER, 1991
- EXPANDED SOCIAL TIES SOCIAL COHESION
- SENSE OF BELONGING
- COLLECTIVE EFFICACY

CITY OF PHILADELPHIA CLIMATE ADAPTATION WORKING GROUP
MULTI-NEIGHBORHOOD NETWORK, COMMUNITY OF PRACTICE
LOCAL RESIDENT-LED, ACTION RESEARCH (CB-PAR)
Office of Sustainability Community Engagement Framework

FREIRE, 1993; MEZIROW, 2000; YOSSO, 2015; THURBER, 2019
- PLACE-BASED ATTACHMENTS
- COMMUNITY CULTURAL WEALTH
- SOCIAL TIES

Just and Civic Participatory Discourses

- It is recommended that Just and Civic Participatory Discourses that attend to resident and community narratives, needs, and senses of belonging are used as drivers of engagement for climate resiliency planning communication. Low's (2017) justice frameworks have already been adopted by local non-profits as a foundation of equitable transformation practices of public spaces within West Philadelphia's University District[6].

- Low (2017), who builds on the work of Gee (2008) and others in the literature on discourse/Discourse, links the importance of speech and speech acts with public spaces as a foundation for highlighting the ways language relates to space (p. 119). Whether through place/street-naming, renaming, or other descriptions of place in city areas, cultural significance of place is often obscured in city planning practices. Thus, Low expands planning frameworks to include other forms of justice (interactional, care, and recognitional/representation) in addition to procedural and distributional justice to honor and preserve cultural significances in communities experiencing urban development.

- Nabatchi and Leighninger's (2015) scholarship serves to bridge Low's forms of justice to civic participatory discourses in order increase engagement among individuals for civic participation. Civic participatory discourses provide an opportunity for "thick" participation (i.e., large number of individuals working in smaller groups) for more meaningful engagement. Such discourses move away from "conventional" methods (e.g. meetings, hearings, etc.) to engage local participants to innovative methods (citizen education, public decision-making) to increase interest for participation. The table presented below highlights the forms of justice in practice through civic participatory discourses to increase citizen engagement.

Forms of Justice (Low, 2017)	Description	Overarching Theme	Civic Participatory Discourses (Adapted from Nabatchi & Leighninger, 2015)
Interactional	Mutual respect and reciprocity for open dialogue. Participants are open to evaluating and being influenced by others' arguments and perspectives	What makes people feel 'welcomed' to participate and fosters a sense of belonging? How is trustworthiness cultivated in community planning?	Mobilizing large numbers of participation through networked recruitment to develop cross-neighborhood, city-wide resources/documents/ resources (asset-mapping, multi-system support networks)
Care	Social learning through discussion and story-telling; Experiencing the environment together.	How do people demonstrate care and understanding for space and each other?	Giving individuals a chance to tell their stories in city resources and materials to capture community visions, personalized place-based context of issues and proposed solutions. City foundational documents (mission, vision, theory of change, etc.) incorporate community-driven insight.
Recognitional/Representational	Historical classed, racialized policies affecting place; Place-based attachments; Community cultural wealth.	Is resident history and culture represented in space for meaningful relationships to place?	Publicly giving individuals different ways to take action in creation and dissemination of resources – climate dashboards/apps, social media & gov't websites, advisory boards, tasks forces, crowdsourcing opportunities, community workshops.

<u>Study Limitations</u>

While the research offered an opportunity to look at the ways in which to engage community residents for city planning initiatives, the study is not without its limitations. First, data used for analysis were not collected for the study's intended purpose. Rather, OOS thought it best to use existing data available to begin exploring engagement considerations and emerging ideas from city residents and key stakeholders. As such, these data were reinterpreted using the lens of the study's problem of practice. As noted in this capstone, scholarship on secondary analysis of data highlights its usefulness in generating "new knowledge, new hypotheses, or support for existing theories" (Heaton, 2003, p. 282).

While a useful and cost-effective approach, secondary analysis does not alleviate the need for additional data collection, especially in terms of the specific needs of residents within communities. Analyzing data as a secondary user also required, as noted in this capstone, a series of discussions with the Deputy Director of OOS to ensure reasonableness in its interpretation. Further, in terms of scope, this capstone focused on one residential community within Philadelphia on one climate issue (heat). As such, it is recommended that OOS continue to co-conduct with residents and community organizations more place-based research for ways to engage specific communities across topics to increase resiliency against climate-related impacts.

Additionally, I cannot escape identifying the study's limitations without acknowledging my positionality. For me, Philadelphia is special. Born, raised, and returned to the city after brief attempts to live outside its walls, it is a place I have always called "home." It is a place where I learned how to ride a bike, celebrated birthdays, bought my first home, and developed lifelong relationships. Yet, to highlight Philadelphia as a setting is to also understand its place in the story as an actor – issuing policies and practices that change the ways in which people experience life

in the city. My mother, a single-mother raising four daughters on a part-time, administrative assistant salary, intimately knew this actor and its constraints. When struggling to keep your home, the city is often relentless.

When I discussed with OOS this capstone opportunity, the student inside me was interested in learning more, while the Philadelphian inside me felt pained at yet another attempt by the City to help communities only to outline the ways in which we have failed. So, while I am likely not unbiased in this instance, the study may not call for this. It, instead, may call for perspective and an understanding for the ways to expand perspectives in order to recognize and value those who call their communities "home." It is an opportunity to find ways to deconstruct deficit narratives still embedded in city policies and reconstitute legitimacy of local sources to increase engagement and equitable participation for city planning. Thus, perhaps my subjectivity is meaningful as it is important to be intimately aware of the existing wealth in communities that engenders communities as places of care.

INTRODUCTION

Cities are experiencing a growing number of environmental and social concerns in response to disruptive events posed by climate change. Understanding the effects of chronic acute shocks to the environment (i.e. floods, earthquakes) as well as consistent stressors that develop from such sustained shocks (i.e. aging infrastructure and climate gentrification), highlight the importance of city environmental and sustainability planning (Meerow, Pajouhesh, & Miller, 2009). While city environmental and sustainability planning is a necessary strategy to develop the capacity for environmental resiliency and adaptation, Thurber (2009) highlights that urban development is not always beneficial across communities (p. 9). Instead, such development may be used to justify rapid investments in infrastructure to protect or enhance an "unjust status quo" that may disproportionately affect communities, especially low-income and marginalized communities who already receive limited resources and assistance (Meerow, Pajouhesh, & Miller, 2009, p. 795).

Thus, in order to understand how a city effectively responds to climate concerns, city stakeholders must explore how environmental resiliency and adaptation planning is understood from the perspective of diverse, underrepresented groups in order to engage participants, across various contexts, on the issue (Rockefeller Foundation, 2014, p. 4). Thus, engaging or increasing the engagement of underrepresented groups on city-wide environmental and sustainability topics widens the lens of analysis on the issue in the hope of creating more appropriate solutions and equitable practices that benefit all city communities.

Context

      The city of Philadelphia (the "City") remains one of the few cities that have produced climate resiliency and sustainability plans that have incorporated an equity framework in policy planning (Schrock, Basset, & Green, 2015). Situated within city government, the Office of Sustainability ("OOS") localizes the responsibility of developing, coordinating, and implementing sustainability initiatives through Greenworks, the city's long-term sustainability plan that aims to make Philadelphia a healthy environment for all residents (Office of Sustainability, 2016). Released in 2016, the plan is constructed with specific attention the five "E's": Energy, Environment, Equity, Economy, and Engagement (Shrock, Basset, & Green, 2015, p. 289). With Greenworks, the City has formed the foundation for community-driven, civic engagement practices with hope of creating just processes and outcomes in climate adaptation and resiliency planning to benefit all city residents and communities.

      Prior 2008, when the comprehensive strategy of equity and sustainability operationalized Greenworks began, elements of sustainability were included in energy policymaking, but not made explicit or inclusive of a city-wide approach (Argyriou, Justice, Latham & Warren, 2017, p. 1465). As explained by Schlosberg, Collins, and Niemeyer (2017), climate adaptation and related policies often situate in disaster and risk management contexts where governments can better "prepare" emergency responses (pp. 413-414). Yet, disaster management scholarship typically considers what type of physical effects (i.e., damage to infrastructure and property) hazards present to areas, not necessarily the social vulnerabilities (i.e., socioeconomic and demographic factors, strength of social networks, neighborhood characteristics) that may make areas more or less susceptible to hazards (Flanagan, et.al., 2011). As a collaborator across internal and external departments for Philadelphia, OOS is often tasked with reframing climate

adaptation and resiliency planning in terms of social vulnerabilities to create more just and the equitable improvements that strengthen community responses to climate-related threats.

Understanding Social Vulnerability

Philadelphia struggles with a complex history of marginalization and disinvestment in low income communities and communities of color that has, in turn, resulted in a reduced, or inadequate, capacity for communities to respond or adapt to climate changes (Office of Sustainability, 2019, p. 17). Flanagan, et. al. (2011) have conceptualized the resilience levels of communities in response to adverse, disaster-related effects with the development of a social vulnerability index (SVI). Understanding a community's social vulnerability provides an opportunity for discussion of the systemic inequities that contribute to situations where specific areas more affected by disaster than others.

When ranked against its sister counties, five-year census data summarized from the American Community Survey (ACS) and the Centers for Disease Control and Prevention (CDC), (2016) displays higher percentile rankings of social vulnerability for Philadelphia across all 15 variables mapped into four themes: housing composition and disability, minority status and language, housing quality and available transportation, and socioeconomic status (see Figure 1.). At the county level, with a high social vulnerability index score across constructs, Philadelphia residents are already more susceptible and disproportionately affected by disaster-related stressors.
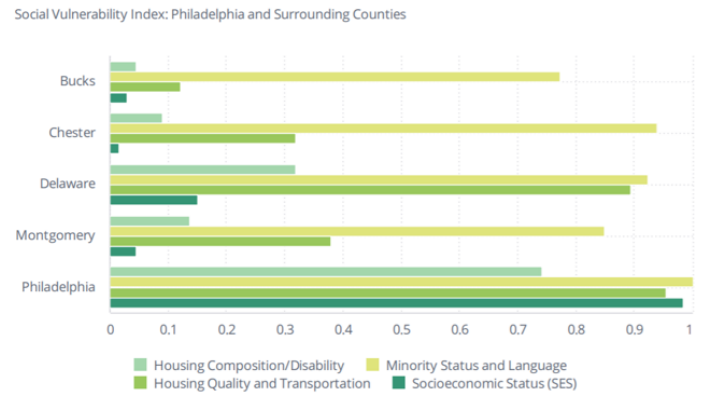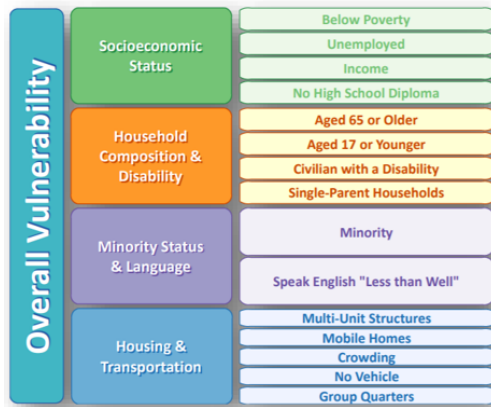
Figure 1. *Social Vulnerability Index: Philadelphia and Surrounding Counties*

Within the county, mapping such demographic and socioeconomic factors to similar themes also highlights disparities in the way city neighborhoods experience and respond to climate and disaster-related stressors. In terms of heat-related effects, 2015 data on surface temperatures (see Figure 2.) demonstrate the extent to which specific communities may experience heat conditions up to 22 degrees hotter than other communities (Office of Sustainability, 2019, p. 7). Further, these specific areas of the city also experience higher levels of social vulnerability (see Figure 3.).

Figure 2. *Map of Heat Exposure & Most Heat Vulnerable – Philadelphia, Hunting Park*

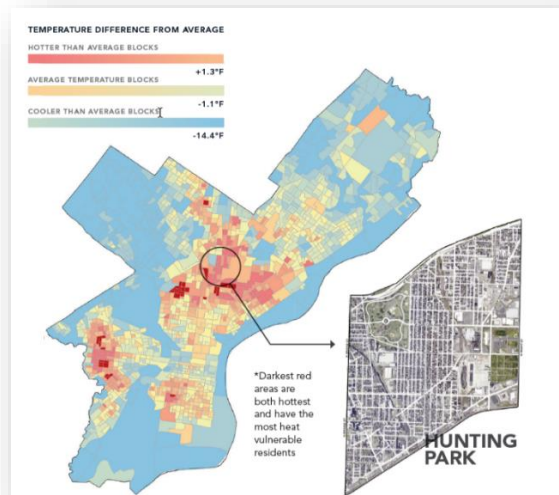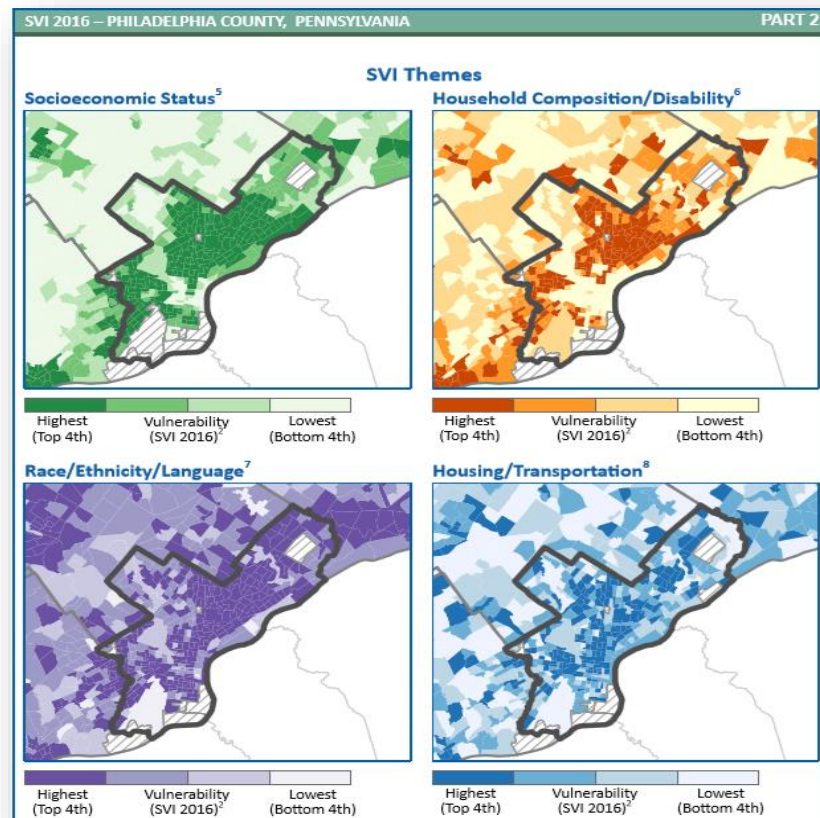**Figure 3.** *CDC Social Vulnerability Index across Themes: Philadelphia County, 2016*

Impact of Covid-19

With 37,502 confirmed cases and 1,815 deaths in early October 2020, Philadelphia remains a "high risk" for COVID 19 transmission (City of Philadelphia, 2020). Similar to other disasters and risks, the pandemic has disproportionately affected communities of color who are already most vulnerable than other communities (see Figure 4.).
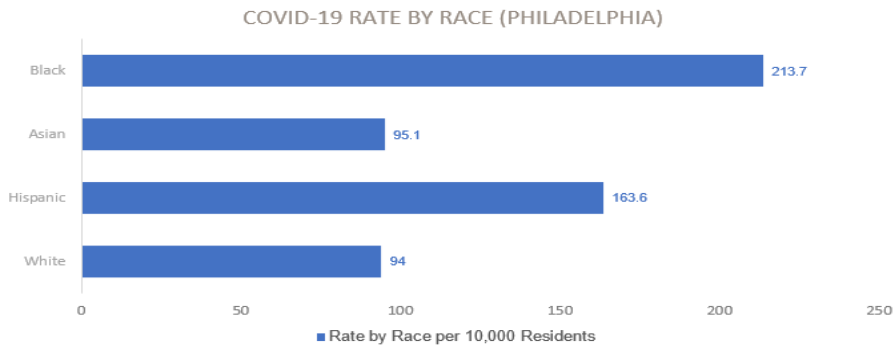

COVID-19 RATE BY RACE (PHILADELPHIA)

Race	Rate by Race per 10,000 Residents
Black	213.7
Asian	95.1
Hispanic	163.6
White	94

Figure 4. *COVID 19 Rate by race, July 2020*

Further, preventative practices such as 'stay-at-home' orders, building closures, and social distancing has left many in the community without relief resources or interpersonal supports to address the severe effects of changes in the weather, i.e., extreme heat, tropical storms, and flooding events ("The coronavirus conversation has got to get a lot more inclusive than this," 2020).

As a result, the data demonstrates that, indeed, Philadelphia's most vulnerable communities are those with low-income residents and residents of color. These residents have experienced the compounding effects of climate impacts on health and wellbeing that both exacerbate existing problems as well as create new problems for which such communities are not equipped to handle. As such, tackling climate adaptation planning through risk or disaster management material interventions will not address the underlying issues present within communities for a more sustainable future. In essence, the City cannot just simply 'fill in the

gaps' of longstanding disinvestment. Instead, it must continue the work established by OOS that sees resident perspectives as a "driver" for more just and sustainable city-wide, climate resiliency plans.

The Organization: City of Philadelphia, Office of Sustainability

At the time of this study, OOS consisted of an eleven-person, culturally-diverse team working to develop city capacities to adapt and grow in response to climate and sustainability-related stressors facing the city. Since climate-ready strategies continuously evolve with new information, OOS in Philadelphia has created partnerships and relationships with local city residents, neighborhood centers, businesses, and organizations to assist in the collaboration of appropriate strategies for complex climate resiliency and adaptation planning.

Yet, the Office understands that addressing issues related to changes in the environment also includes understanding current racial and social disparities existing among communities that may jeopardize sustainability and wellbeing. Thus, the Office has expanded its strategies for climate resiliency planning and adaptation to include equity interventions related to food, housing, transportation, energy, and economic policies to address the needs of diverse community members of Philadelphia neighborhoods.

PROBLEM OF PRACTICE

The Office of Sustainability seeks to create a unified climate resiliency strategy for the city through the assistance of an appointed climate resiliency leader from each city neighborhood. It is understood that these appointed climate resiliency leaders should be individual(s) who reside in the specific community and engage in the development of city-wide climate planning. Working with the neighborhood community development centers or other community associations, resident climate resiliency leaders will support city initiatives by serving as a local resource for increasing climate-related action in their communities. With this

approach, the city hopes to capitalize on a) reciprocal identification among community members for shared experiences, b) personal interests in the field, as well as c) civic engagement experiences for further civic action.

Currently, OOS has collected survey data from key community organizations and residents of diverse communities in Philadelphia to provide an understanding of how the targeted community understands issues related to climate and extreme weather, as well as to gage community interest on such issues. Yet, OOS has not had the opportunity to fully analyze these existing data in terms of what types of frameworks may assist in the creation of appropriate interventions for specific neighborhoods involved in the program.

THEORETICAL FRAMEWORKS SHAPING THE RESEARCH

The frameworks selected for this capstone are rooted in theories that develop a sense of community for authentic collaboration across diverse groups for civic action. Such frameworks explore the multidimensionality of a community's cultural wealth as it relates to the development of social capital from social relationships formed across people and place. Research has posited that when social capital is present, there is an increase in the capacity for action and facilitates the production of good (Paxton, 1999, p. 92).

With these conceptualizations in mind, the project references the following theoretical perspectives as contributing factors towards increasing social capital for engaging audiences toward civic action: Bandura's (1974) self-efficacy theory in the development of attitudes and behaviors for resiliency, Coleman's perspectives (1988) on developing trust to increase social capital capacity for civic engagement, and Yosso's (2005) asset-based framework on community cultural wealth to enhance social capital and engagement in community action.

LITERATURE REVIEW

"The revolution is made neither by the leaders for the people, nor by the people for the leaders, but by both acting together in unshakable solidarity."
–Paulo Freire[1]

In his work, Freire (1970) focuses on "generative themes," i.e. aspirations, ideas, and values, of groups of people as the foundation of praxis – reflection by communities in order to build capacity for action (Brookfield & Host, 2011). Exploration of these generative themes provide the foundation for asset-based, social capital theories which recognize the burgeoning power in communities that stems from community-developed resources, positive social ties, and collective efficacy. In turn, such theories support capacity-building investments in the community by providing additional resources to achieve change (World Bank, 1997). It is in these theories that researchers may uncover the factors that increase community engagement for underrepresented groups for participatory, civic action.

Social Capital Development for Civic Action

Social Capital and Collective Efficacy

For Coleman (1988), social capital exists in the value of social relationships among individuals to facilitate action (pp. 98-100). In these social relations, there are a series of obligations and expectations, fostered by trust, in which individuals possess and understand will be reciprocated an upheld by others (Coleman, 1988, p. 102). This expected reciprocity takes shape in service to others where interests and acts conducted by the individual may benefit others; yet, there is a general expectation that this "kindness will be returned at some undefined time in the future" (Onyx & Bullen, 2000, p. 24). Thus, this understanding of reciprocity

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[1] *As featured in <u>Pedagogy of the Oppressed</u>, Chapter 4.*

captures a specific type of relationship that is critical to the development of social capital as it builds trust and implies a personal commitment for mutual success.

In environments with strong reciprocity, there is a raised level of awareness among individuals to care for each other's interests. As such, this interest manifests into a collective, group interest that has greater potential to engender a collective, group efficacy. Bandura (1997) describes collective efficacy as "a group's shared belief in its conjoint capability to organize and execute the courses of action required to produce given levels of attainment" (p. 477). In this way, individuals accumulate resources and experiences that increase group assets and, as Bandura (1995) explains more "mastery experiences," that contribute toward success and confidence in economic, social and political opportunities (p. 3). It is understood that changes in social conditions are typically achieved through collective efficacy, not necessarily individual efficacy. Accumulated assets develop "agentic capabilities" that allow individuals and groups to choose and execute actions that influence events, which shape the individual as well as the community's trajectory (Bandura, 1995, p. 47). Even when unintended outcomes occur, strong collective efficacy of communities serve as a support system to weather hardships and overcome setbacks.

Social Capital and Attachments to Place

As social relationships form bonds that unite individuals for a collective sense of community, one's attachment to place also enhances a community's collective efficacy and capacity for action. As community members engage with each other in specific places, place-based attachments, where such social bonds are formed, transform an "undifferentiated space" into a valued place (Manzo & Perkins, 2006, p. 337). As such, the dyad of social ties and

people's attachment to place serves to develop one's sense of belonging as a member of a community and serves as a resource-building agent for increased social capital.

A sense of community fostered from place attachment affects one's participation and, more importantly, one's sustained participation in the community. As resources are accumulated in connection to social context, place becomes a 'common ground' for group identity and power (Alsop, Bertelsen, & Holland, 2006, p. 13). Thus, place attachment serves to reinforce local identity among community members to support positive relationships for greater sustainability and community well-being.

Cultural Capital Wealth and Situated Learning

Tuck (2009) highlights a persistent, flawed trend in social science research that focuses on a damage-centered narrative for "Native communities, city communities, and disenfranchised communities" that identifies such communities as "broken" (p. 409). Such communities, as posited by past scholarship, seemingly lack necessary cultural wealth to create and sustain social capital for agency and change. Yet, such damage-centered narratives perpetuate a myth that specific communities lack self-determination and commitments for success. As a result, "failure" in communities is often documented instead of providing the necessary resources to support increased knowledge and appropriate action (Tuck 2009, p. 414). Thus, focusing on concepts of social capital without acknowledging a community's cultural capital is problematic as it limits the ways in which positive identities are reified and reciprocated through shared experiences to build learning and trust in the environment.

The emphasis on the existing cultural wealth resources of diverse communities has roots in Critical Race Theory (CRT) frameworks. To contextualize this framework, CRT explores the ways in which underrepresented groups, i.e. African Americans, Native Americans, Asian-

Americans, Pacific Islanders, Chicanas/os, and Latinas/os, continue to experience and respond to race, racism and forms of oppression in society (Yosso, Smith, Ceja, & Solórzano, 2009, p. 662). The core principles of CRT challenge perspectives that emphasize communities of color lack the necessary social and cultural capital for upward, social mobility.

Cultural Wealth Theory (Yosso, 2005) extends the CRT framework to highlight the unique cultural capital rooted in communities of color that often are unrecognized as assets and aligned towards success. Historic viewpoints of cultural wealth have been used to explain the limitations in action and agency across communities, instead of highlighting the funds of knowledge established in communities as forms of capital (Gonzalez, Moll, & Amanti, 2005). With a modern framework, such funds of knowledge may be used to understand the impact of cultural capital developed through strong associations between individuals and specific shared experiences. Paxton (1999) highlights that such associations between individuals and as well as high levels of trust and reciprocity of experiences form peaks in social capital for optimal gains (p. 95). Further, understanding the interconnections and reciprocations that occur in the socially- and culturally-structured world provides an opportunity to understand how learning takes place as a situated practice for members of a community (Lave, 1991, p. 67).

Yosso (2005) highlights such cultural capital of accumulated knowledge and skills is not only present in diverse communities but thrives – resisting macro and micro-forms of oppression (p. 77). Such capital establishes resiliency through support across six domains (aspirational, navigational, social, linguistic, familial, and resistant) to diversify social interactions as a strategy for success. As these domains evolve with insight and experiences in communities, they also overlap with each other for stronger development.

Thus, highlighting the ways in which cultural capital of communities exists and is shared by members through Yosso's Cultural Wealth Theory is important to understanding how social capital among diverse communities is developed and how learning is situated as a social practice with close associations and shared lived experiences.

METHODS

Research Question for the Capstone Project

Drawing on the theoretical frameworks outlined in earlier sections of this work and guided by feedback from the Office of Sustainability, I approached the study with the following research question:

- What factors contribute to increasing engagement for civic activism among underrepresented groups in an urban setting?

During early conversations with the Deputy Director regarding this research study, an important aim of the study evolved to explore how specific processes begin to enhance situational contexts in cultivating a sense of community for authentic collaboration. As the study the developed, I learned it was important to also deepen my understanding of the following operational questions:

- What factors strengthen resident leadership in the context of civic participation?
- What factors build a community's capacity to promote and sustain positive placed-based changes?
- To what extent do distributional, procedural, and recognitional forms of justice engage members of underrepresented communities?

While the research question and supporting questions highlight the ways positive change emerges in communities, the study's design explores a situative "lens" for this understanding as it relates to what circumstances and situations as they work for whom and in what ways. As such, the design included methods to bridge an understanding of change across settings - at the local, city, and regional levels.

Secondary Analysis of Data

The study's research method uses secondary quantitative and qualitative data provided by the Office of Sustainability for analysis. According to Heaton (2003), secondary analysis "involves the use of existing data, collected for the purposes of a prior study, in order to pursue a new interest which is distinct from the original work" (p. 281). While secondary data remains a cost-effective method for data collection as it uses what has already been collected, it also provides an opportunity to examine new conceptualizations outside of the intention of the original research. Specific to this study, methods also include a constructivist grounded theory approach that focuses on learning about the experiences within "embedded, hidden networks, situations, and relationships, and making visible hierarchies of power, communication, and opportunity" in the analysis and interpretation of data (Creswell, 2007, p. 65).

Supported by a mixed-methods design of quantitative and qualitative secondary data sets, the study offers different ways of assessing a phenomenon (i.e., engagement, equity, and justice) as it relates to the social contexts and current reality of individuals of interest to this research. Dunning et al. (2007), highlight that the dualism that exists within mixed-method designs often accelerates researcher comprehension and details related to the phenomenon. Thus, the analyses of the types of secondary data used for the purposes of this study intentionally serves to provide an adequate sample for the research to maximize the depth and insight of new findings within the capstone's timeline.

For this research, a secondary analysis of survey data collected as part of the city's 2018-2019 heat resiliency pilot and data collected from semi-structured interviews among the city's internal/external staff, regional partners, and community organizations ("Multi-Stakeholder" Interviews) provided the basis for study.

Heat Resiliency Pilot: Hunting Park

In 2018, OOS launched a community-driven, equity-based approach to climate resiliency planning with the "Beat the Heat Hunting Park Initiative" (Office of Sustainability, 2019, p. 1). As part of the city's Greenworks planning initiatives, the city sought to understand how climate change, specifically heat, impacts communities most susceptible to adverse effects and what types of interventions would assist in protecting these vulnerable communities. Extreme heat remains a core focus in Philadelphia's sustainability initiative as data reported by Pennsylvania's Delaware Valley's Regional Planning Commission[2] projects an increase of heatwave trends for the city (see Figure 5.).
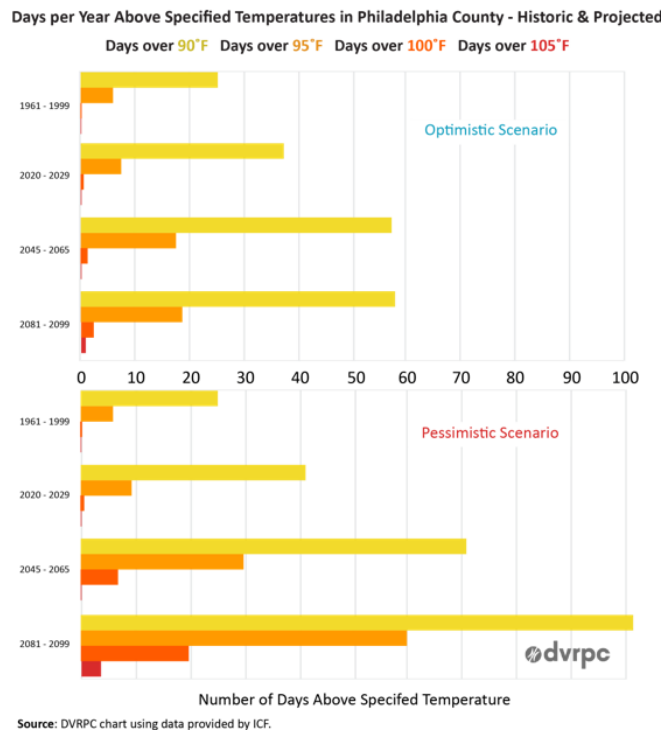

Figure 5. *Philadelphia County: Days per year above specified temperatures*

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[2] "Climate projections for DVRPC region: Philadelphia County." Retrieved from https://www.dvrpc.org/EnergyClimate/CCMIT/

With this heat resiliency initiative, the city conducted a neighborhood heat survey among the residents of the Hunting Park section of the city to gain a deeper understanding of resident experiences with heat.

Site Selection

In choosing the specific neighborhood to pilot the heat resiliency initiative, the city used available heat data and the city's Heat Vulnerability Index to determine Philadelphia's "hottest and most heat vulnerable areas" (Office of Sustainability, 2019, p. 1). With data as the driving force for site selection of the pilot, the city also used the following criteria for selection:

- At least one member-driven, placed-based organization in the neighborhood that may serve or has served as an organizational partner for city initiatives; and,

- Community residents interested in participating in the pilot project.

Based on these criteria, the city selected the Hunting Park section of the city as the location for heat resiliency pilot program.

Hunting Park "Hot by Design"

Unequal exposure to heat often stems from disparities in specific conditions within the neighborhood's environment, particularly socioeconomic and demographic factors with respect to age and income, as well as environmental factors corresponding to the presence of tree canopies, green spaces, exposed dark asphalt, buildings and infrastructure investments (Office of Sustainability, 2019). Disparities and inequities within areas of the city are not circumstantial. Racialized practices, i.e. redlining of residential communities and discriminatory loan practices for such communities deemed "high risk," often redrew lines of dispossession and disinvestment keeping many Black and Latino residents both physically and metaphorically "in their place."

In Philadelphia, residents of Hunting Park experience a section of the city that is "hot by design" (see Figure 6.) with more aging housing stock, "pavement and exposed asphalt, older and less reflective building surfaces, and limited vegetation" (Office of Sustainability, 2019, p. 16).

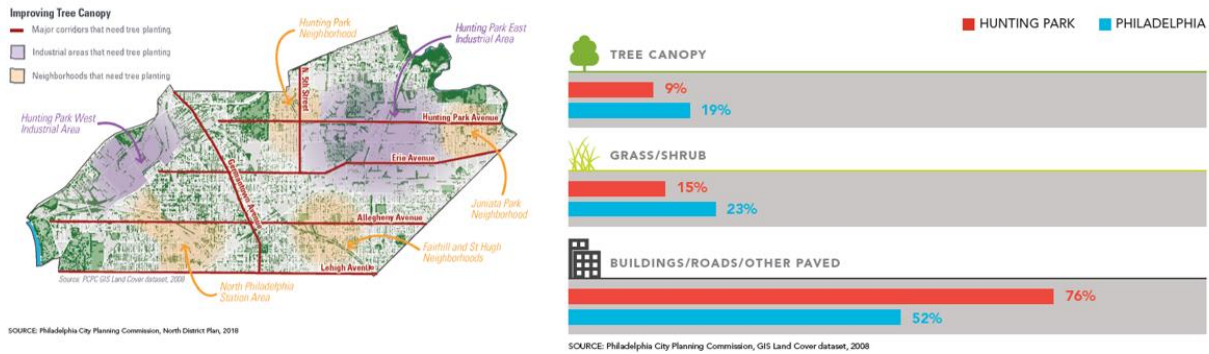**Figure 6**. *Hunting Park Land Cover Map*

Figure 6. Hunting Park Land Cover Map

A side-effect of the neighborhood's design, an increase of heat concentrated in areas also increases the likelihood of health-related risks among populations most sensitive to these conditions, i.e., children, elderly, individuals with pre-existing or chronic health conditions (Office of Sustainability, 2016, p. 13). Specifically, for Philadelphia, public health data collected on children hospitalizations due to asthma conditions identified Hunting Park as a leading of section of the city with the greatest number of asthma-related hospitalizations per 10,000 cases for children under the age of 18 (see Figure 7.).
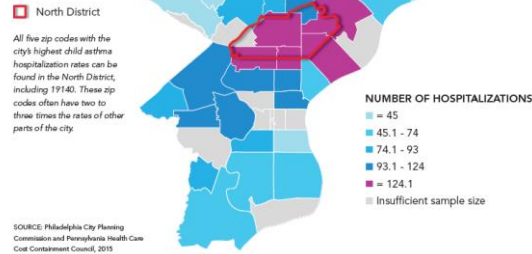
Figure 7. *Asthma Hospitalization Rate – Hunting Park (zip code 19140)*

While Hunting Park endures many of the harmful effects of racialized policies, its resilience and social cohesion cultivated through place-based social ties serve as assets that contribute to the community's cultural wealth, a necessary condition to initiate and support change (Yosso, 2005).

Heat Survey Sample and Data Collection

Over the course of seven months, from July 2018 to January 2019, the city's "Beat the Heat" team surveyed more than 600 residents and community leaders in the Hunting Park section of Philadelphia. The 19-question survey, administered in both English and Spanish, was provided to participants residing in Hunting Park zip codes of 19140 and 19120 (Figure 8.) and focused on material interventions such as home cooling, public spaces, trees, and green spaces (Office of Sustainability, 2019, p. 16). The survey provided an array question types including open, closed, multiple choice, ranking and Likert scale questions (see Appendix A).
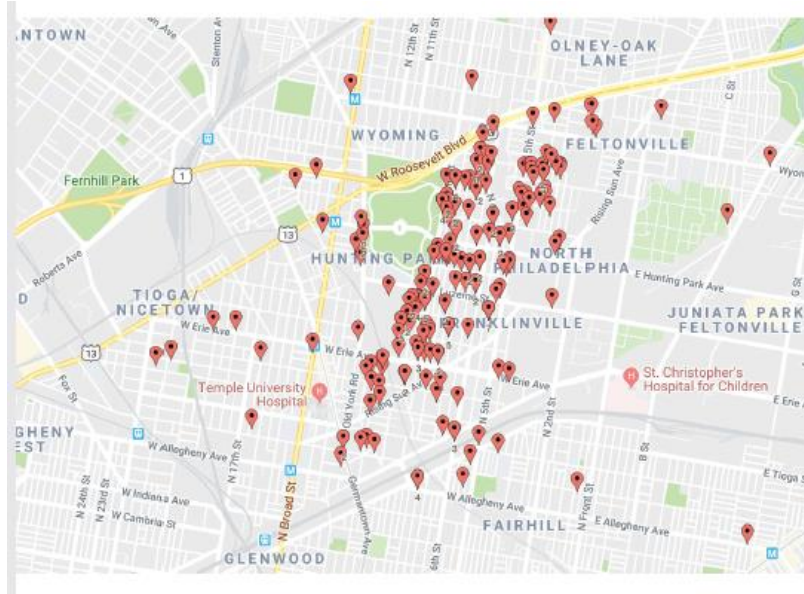
Figure 8. *Hunting Park Heat Survey: Surveyed Blocks*

Through its "Beat the Heat" field team, the Office of Sustainability received an 89%

survey response rate with 531 completed surveys submitted by respondents during this time

period.

Table 1. *Summary Characteristics of Sampled Respondents*

Total Residents	Total Sample Size	Total Survey Responses	% Surveyed in English	% Surveyed in Spanish	Median Age of Respondents	% of Respondents Residing in 19140	% of Respondents Residing in 19120
841[3]	600	531	74%	26%	45	71%	5%

Members of the "Beat the Heat" Team summarized survey results (see "Analysis of Survey

Data") for use by the Office of Sustainability for further action and neighborhood interventions.

Multi-stakeholder Semi-Structure Interview Data

Building on one of the core objectives listed in Philadelphia's 2015 sustainability report,

Growing Stronger Toward A Climate Ready Philadelphia, the city intends to begin its climate

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[3] 2010 US Census Data

adaptation and resiliency planning through a multidisciplinary and multilevel approach. As part

of this planning and scoping project, the city conducted 16 semi-structured interviews with key

stakeholders from internal city departments as well as outside agencies and community

organizations (see Table 2).

Table 2. *OOS 2019 Scoping Project: Stakeholder Agency and Organizations*

City of Philadelphia staff

1. Department of Planning and Development
    2. Office of Transportation and Infrastructure
    3. Community Empowerment and Economic Development
    4. Office of Emergency Management (OEM)
    5. Department of Health (DOH)
    6. Department of Water (PWD)
    7. Office of Public Property

Regional Representatives
1. SEPTA   2. Delaware Value Regional Planning Council (DVRPC)
Community Organizations

1. Esperanza
    2. Overbrook Environmental Center
    3. Philadelphia Association of Community Development Corporations (PACDC)
    4. Sierra Club, Philadelphia Climate Works
    5. POWER Interfaith
    6. Bartram's Garden
    7. Climate & Urban Systems Partnership (CUSP)

In the summer and fall of 2019, data collected from participant interviews provided the

backdrop for a city-wide, human-centered design strategy that leveraged industry knowledge and

expertise in order to a create a shared vision and goal for reducing climate-related inequities,

risks, and vulnerabilities. As part of a general scoping project across city staff, regional partners,

and community organizations on climate resiliency and adaptation, specific questions centered

on surfacing successful and unsuccessful engagement methods between agencies and between

agencies with involvement of local communities. Additionally, the effort sought to inventory

available climate-related models, metrics, educational materials and resources for use during the

planning process. For the purposes of this study, interview transcripts were coded for thematic patterns pertaining to the research and operational questions for the study.
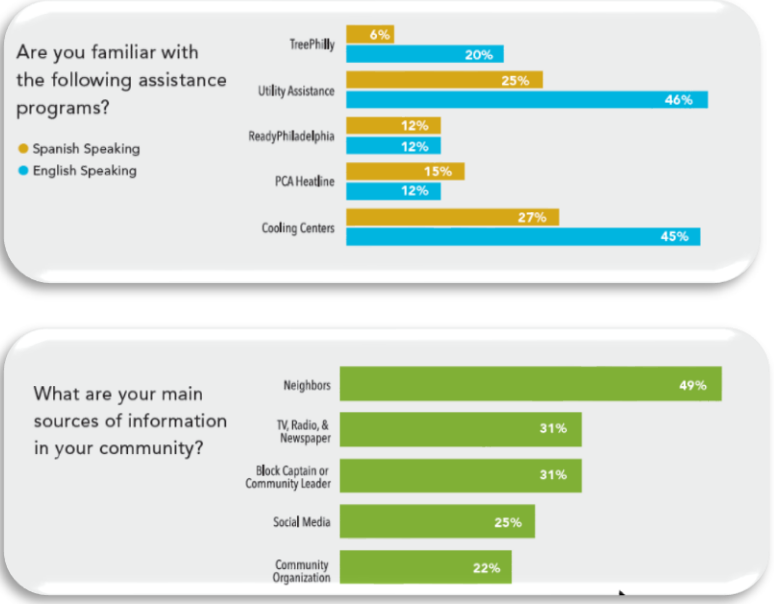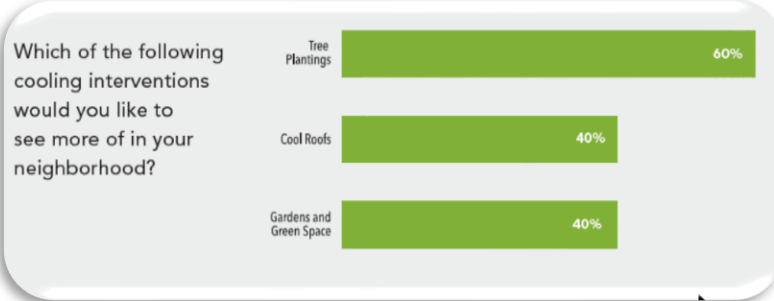
<center>Analysis of Secondary Data</center>

Analysis of Survey Data

From the survey responses administered to Hunting Park residents, specific questions and responses were selected from the questionnaire that offered insight on residents' personal and interpersonal experiences with heat-related concerns, resident perceptions of these experiences in terms of their sense of self, and/or sense of social cohesion (as a sense of "community"), and resident perceptions that framed a "vision" for their community (see Table 3.). These insights remained important conceptualizations underscoring this study, i.e. the factors that contribute to participation and authentic collaboration among underrepresented groups. A demand for authentic, community-based participation often "comes out of experiences of disenfranchisement, as a result of mis-or mal-recognition" experienced by the targeted community (Schlosberg, 2004, p. 523). As such, it was important to identify among the response data impediments that contributed to the undermining of resident social recognition (e.g. dismissing basic needs and capabilities to support everyday life). As scholarship on environmental justice practices note: if a community does not feel recognized, a community does not participate (Schlosberg, 2004).

Yet, it is of particular interest to note that not all survey responses were provided to the researcher for this study. Instead, reported results in this study derived from data collected and shared with the public.

Table 3. *Hunting Park Heat Survey Response Results*

Theme	Type of Question	Response Results
Interpersonal - Neighborhood/ Community Information & Communication	Check-All-That Apply (Question 14) Check-All-That Apply; Open-Ended (Question 16)	
Expectations/ Visions of Community	Check-All-That Apply; Open-ended (Question 12)	
Perception of The Current Reality Affecting Sense of Self; Sense of Social Cohesion	Open-Ended	"I love that there are so many passionate folks determined to help our community continue to grow in a positive manner—and I'm not talking about 'turning over the neighborhood' or gentrification—but rather to put resources towards the existing staples in the community so that they can continue to develop in order to better meet the needs of our residents." "High temperatures in the summer tend to keep our residents indoors, which decreases the sense of community among neighbors. The heat is also an important trigger for many residents who suffer from asthma and other respiratory problems. Overall, high temperatures do not only affect how it feels outside of people's homes but it also plays a role in the overall safety of the community."

While a central concern for quality of qualitative research is its adequacy, i.e. sufficient time in the field for data collection and an extensive "body of evidence" (Creswell, 2007, p.289), the survey data yielded strong returns. Reaching approximately 600 residents with a high response rate, the survey response data adequately conveys a robust representation of the perceptions among residents of the targeted community.

Analysis of Stakeholder Interviews

For the semi-structure, stakeholder interview data captured in a series of Microsoft Word documents by the original interviewer, a grounded theory approach to coding the interview responses enabled the researcher to specifically highlight text selections that contributed to important themes. This offered an opportunity for the research to go beyond frequency counts to more salient themes patterned across responses, as not every interview participant answered every question posed by the interviewer. It is important to note, however, that there were two types of interview instruments used for specific participants: (1) interview questions directed to city staff and regional representatives who may or may not engage directly with communities, as well as (2) interview questions of community organizations with specific experience in community engagement and participation. While some questions in the instruments did overlap across stakeholders in terms of climate resiliency definitions and climate-related work, specific differences were noted in the interviews with community organizations that explicitly called for inclusive practices and ways to engage the community.

After the preliminary review in full of all available responses provided by stakeholders, segments of text information were coded to answer "what theoretical categories might these statements indicate? (Charmaz, 2006). Similar to the Heat Pilot survey data, general themes became apparent across stakeholder responses and were recorded for specific coding

assignments. While my initial research questions provided the foundation for some of the themes developed, other themes emerged during the analysis of the data. In the second round of coding only two prefigured codes were applied (participation barriers and participation incentives for external stakeholders and community).

Five general themes that emerged across these data included:

- Community[4] involvement
- Climate adaptation knowledge, planning experience
- Multiple stakeholder involvement
- Transparency in communication
- Updating & revising current information, documentation, model

The two prefigured codes applied during the second round of coding included:

- Participation barriers for community and stakeholders
- Participation incentives for community and stakeholders

While themes related to participant barriers were only observed in responses from community-facing organizations, not city staff or regional representatives, it was important to include this theme as a prefigured code central to the research question. Understanding ways to increase participation of community members relies on understanding any existing barriers or obstructions that may threaten diverse cultures, identities, and ways of knowing that go on to influence and impact participation. As Schlosberg (2004) explains, "there is a direct link between justice as equity, cultural recognition, and democratic participation; focusing on one notion at the expense of others, or while ignoring others, simply cannot satisfy the threefold nature of justice […]" (pp. 528). Yet, the study was limited in prefigured codes/themes. For Creswell (2007), "prefigured" codes often limit analysis instead of reflecting the views of participants in a traditional qualitative way (p. 153).

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[4] For this project, "community" refers to residents from particular neighborhoods and local/placed-based organizations that serve residents and resident groups in specific neighborhoods.

In order to code these responses for analysis, I uploaded the data into the qualitative software, Dedoose©. After coding a series of stakeholder responses, I met with a representative of OOS to ensure I was interpreting the response for coding categories appropriately. An important note in this process is that coding did not account for duplicate coding within interviews as multiple participants may have been represented in one stakeholder interview and it was unclear as to who might have provided the statement. Further, as I received this information from the city and did not assist in conducting the interviews, I was unable to record any affective codes, i.e. excitement, frustration, joy, to these data that might have contributed to understanding the level of community stakeholders may have expressed for community participation. Finally, I reviewed all of the coded excerpts in Dedoose and ran a code co-occurrence analysis comparing themes highlighted across the survey instruments (see Figure 9.).

Figure 9. *Code Co-Occurrence Table*

The benefit of constructing a code co-occurrence table is to deepen the understanding of the overlapping themes that become salient among respondents when discussing specific topics, i.e., climate resiliency, community, and climate-readiness in Philadelphia. For example, in the code

co-occurrence table that features results from community organization interviews, the

highlighted cell in the table above indicates that 16 overlapping excerpts feature coding results

with both the 'Multiple Stakeholder Involvement' and 'Community Involvement' codes. Yet,

while city staff and regional representatives cited the importance of community and multiple

stakeholder environment, repeated themes of "Transparency in Communication" and "Updating

and Revising Communication Materials" surfaced as primary concerns, instead. When selecting

specific cells, the qualitative raw data displays to summarize coding results (see Table 4.).

Table 4. *Qualitative Raw Interview Data*

It is important to note that a particular pairing's relatively high frequency among other associated pairings in the table conveys that as participants are thinking and reporting on one of the concepts, they often connect to thoughts or ideas about the other. Such a combination suggests that an overarching schema activates both concepts as participants formulate responses.

Further, this illustration exposes patterns that are often unlikely to be noticed or understood in the midst of human-coding activity. Yet, these patterns are valuable in discovering and understanding how respondents naturally discuss these concepts in combination and how these organizing principles and characteristics contribute to the study's findings.

SUMMARY OF FINDINGS

"If you have come to help me, you are wasting your time. But, if you have come because your liberation is bound up with mine, then let us work together."
~Lilla Watson, Indigenous Australian visual artist

In research communities, it is important to examine what data are often constituted as "legitimate" by whom and for what purposes. The voices of communities, the direct residents and members of communities, are data that serve to not only reveal the patterns of devastation but, more importantly, legitimatize the joy and emotional attachment towards people and places of living. In many places, including Hunting Park, voices within communities coalesce, forming a sense of community. When working in concert to cultivate this sense of community, the City is not an agent of change, but a participant working with communities for joint liberation.

Thus, recognition and care for this voice across the following key findings must work to position residents as experts and necessary participants in the process due to this expertise. With this in mind, the study's data highlight the following findings that contribute to the factors that increase participation among underrepresented groups for civic activism:

Recognizing inequities

The environmental, social, and cultural dimensions affecting residents

When considering the research question for this study, it became important to reveal the ways in which inequities have played a role in shaping current relationships with communities. As mentioned in the introduction of this capstone, the foundation of Philadelphia's relationships with some communities is built on overlapping racialized practices whereby mistrust serves as the edifice. Thus, identifying specific factors demands recognition of the ways in which: climate-related issues affect the basic needs of groups; how issues increase risks to fundamental human capabilities in terms of housing, health, economic security, and community wellbeing; and, how such issues are perceived and understood by those most affected.

Recognition, however, is not a precondition for distributional and procedural equities for adaptation and resiliency; it is a relationship that happens in connection with distributional and procedural practices to ensure equity (Schlosberg, 2004). Thus, to address the research question, findings from analysis highlighted the recognition of underrepresented groups through an understanding of the environmental, social, and cultural dimensions that affect residents. Such findings also highlight important implications for the current discourse used in climate adaptation and resiliency planning that addresses needs of communities too narrowly with distributional and procedural practices.

In terms of understanding the environmental, social, and cultural dimensions of climate-related changes within communities, the "Beat the Heat" survey findings suggest that community residents have an awareness of the increasing intensity of extreme weather events, i.e. extremely hot days, with 78% of survey respondents citing high heat as a "very important" issue facing their community (Office of Sustainability, 2019, p. 26). Further, residents also understand how

these extreme weather conditions disproportionately impact their activities as the community's

N. 9th Street Block Captain notes:

> We can't even sit outside for long periods of time because it gets too hot and there are not too many places where there is shade unless we go to the park. The heat has a bad impact because not everyone can afford to buy air conditioners or fans.

The Block Captain's quote highlights the ways in which neighborhood residents understand how behaviors and actions shift in response to changes in environment.

Additionally, the quote also marks the disparities and inequities experienced by low-income communities – with limited access to cool areas in the community or affordable, home cooling options. The impact of this disparity is further recognized in Spanish-speaking residents who had limited awareness of utility programs that could assist with high utility costs, with only 25% familiar with such programs compared to 46% of English-speaking participants. Thus, community groups show a concern for the basic needs such health, energy, and security.

'Community' as sense of place and belonging

Place-based Commitment & Collective Efficacy

Yet, what is important to note or infer in the responses to the city's heat survey is the commitment many residents have to their community and the attachments they have fostered to place. Specifically, when asked which types of cooling interventions the residents "would like to see more of your neighborhood," 60% of respondents cited tree planting as a main cooling intervention, followed by other interventions such as updated infrastructure (cool roofs) and gardens and green spaces. Such findings are consistent with the recent actions of Hunting Park residents in the community's effort to revitalize an 87-acre park, planting more than 800 trees (Office of Sustainability, 2019). Residents' revitalization actions underscore a demand for capabilities to make a life of one's choosing. According to Schlosberg, Collins, & Niemeyer

(2017), "community groups raise issues of capabilities in everyday life more than we find in the adaptation planning documents of local governments" (p. 423).

These findings reveal not only a sense of place and pride members have for their community, but also the aspirational capital and long-term vision residents possess for a thriving community (Yosso, 2005). Residents desire and believe they can make a difference in their community, in turn, creating and designing interventions for change. According to Bandura (2000), such perceptions of efficacy are critical to human functioning as people not only express a belief in their ability to achieve results, but also understand that shared beliefs strengthen a collective power for greater agency and change. Thus, as residents work together to achieve change there is a collective investment in the physical and social structures of community.

Community-based Relationships & Strong Social Ties

Further analysis of the heat survey data exposes the importance of social relationships residents hold with each other as neighbors within the community. Approximately 49% of respondents cited their neighbors as the main source for their information in the community. If not through neighbors, 31% respondents still cited a resident of their community – either their neighborhood block captain or community leader – as a primary source for information. Such interpretations of data suggest that Hunting Park residents express a sense of community cohesiveness, or an interconnectedness, that works to support the existing social capital of the community, i.e., the existing networks of people and community resources instrumental to the social fabric of residents (Yosso, 2005). As Thurber (2019) notes, although individuals may access social ties outside of immediate neighborhoods, the reduced access to available resources (i.e., financial, transportation) one has, "the more important proximal relations are to wellbeing" (p. 3).

Further, the interpersonal relationships among Hunting Park residents also cultivate a sense of belonging through kinship ties formed in the community. As the N. 9th Street Block Captain commented, "In Hunting Park there are a lot of very loving people who would give you the shirts off their backs if they had to." Yosso (2005) considers such kinship ties across residents as an extension of familial capital, a type of cultural wealth that stems from positive social connections and communal bonds for shared concerns. Such findings challenge conceptualizations of poor social capital in urban communities, or maladaptive responses of individuals in urban communities in response to social, economic, and cultural inequities (Akom, Ginwright, & Cammarota, 2007). Further, they also challenge conceptualizations of "grit" and why some individuals preserve more than others (Duckworth, Peterson, Matthews, & Kelly, 2000). Reducing grit down its core, individuals seemingly preserve for perseverance sake. In Hunting Park, residents survive, not only for themselves, but for each other. These relations contribute in the strong bonds and ties residents use to cope with adversity. For residents of Hunting Park, such reflections crystalize the intentional and deep connections of care residents have for each other that may be leveraged to increase participation among residents for civic action.

Inclusive communication

Transparency, opportunity, and access for increased participation

As reported in participant responses captured in the multi-stakeholder interviews, internal and external city staff and regional representatives provided an awareness of the disparities within certain communities that increase the community's susceptibility to adverse effects of climate change. With this understanding, many participants advocated for prioritizing resident inclusion in the process of planning, attempting to center equity and lived experience as instrumental climate adaptation and resiliency planning.

Yet, a difference in the data worth underscoring is the frequency for which community-based organizations included references related to community involvement in conjunction with multiple stakeholder involvement when compared to responses from city staff and other regional representatives (see Figure 11.). Specifically, participant(s) from Philadelphia's Sierra Club, a grassroots environmental organization, conveyed the following ideas about climate adaptation and resiliency planning:

- "…co-creation of a 'plan of solutions'" [with residents]
- "equitably engage in conversation….[be] invested in making sure all voices are heard"

This difference may be attributed to the types of questions posed for the particular stakeholder. For example, questions such as "How might we ensure the planning process is inclusive from start to finish and that strategies are designed with equitable outcomes in mind," or "How might the City best collaborate with community partners and other external stakeholders during planning?" were asked of community-based organizations.

In contrast, city staff and regional representatives were asked, "How has your department engaged with external partners in the past/What were some lessons learned?" and "Who needs to know this information [of the inter-disciplinary strategy] and how should it be communicated to that audience?" Such discourse veils the importance of community involvement in planning processes put forth by city agencies. Further, although no specific question asked concerning participants' barriers to entry in the planning process, city staff and regional representatives did not mention such considerations as an issue in climate adaptation and resiliency planning. Thus, direct participation of community members affected most deeply by climate change may present

opportunities to create more legitimate and effective policies.

Community Organizations

Codes	Community Involvement	Level of Climate Adaptation	Multiple Stakeholder Involvement	Participation Barriers	Participation Incentives	Transparency in Communication	Updating/Revising Current	Totals
Community Involvement		1	16	3	6	13	8	47
Level of Climate Adaptation	1		1					2
Multiple Stakeholder Involvement	16	1		1	3	6	3	30
Participation Barriers	3		1		1	1	1	7
Participation Incentives	6		3	1		2	1	13
Transparency in Communication	13		6	1	2		9	31
Updating/Revising Current	8		3	1	1	9		22
Totals	47	2	30	7	13	31	22	

City Staff & Regional Representatives

Codes	Community Involvement	Level of Climate Adaptation	Multiple Stakeholder Involvement	Participation Barriers	Participation Incentives	Transparency in Communication	Updating/Revising Current	Totals
Community Involvement			6		2	4	3	15
Level of Climate Adaptation			1					1
Multiple Stakeholder Involvement	6	1			1	6	4	18
Participation Barriers								
Participation Incentives	2		1					3
Transparency in Communication	4		6				8	18
Updating/Revising Current	3		4			8		15
Totals	15	1	18		3	18	15	

Figure 10. *Frequency Table: Community Organizations and City Staff & Regional Representatives*

Beyond Disaster and Risk Management Discourse

Other overlapping concepts with higher code co-occurrence from stakeholder interviews demonstrated an importance in the transparency of communication with such activities as updating and revising climate-related models, adaptation plans, data, and other forms of existing information. Such climate-related information (i.e., Growing Stronger Toward a Climate-Ready Philadelphia, Useful Climate Information for Philadelphia: Past and Future, Municipal Management in a Changing Climate - Delaware Planning Regional Planning Commission), posed a concern for city staff and regional representatives as the previously-published or released information was either not current enough, or not as transparent given the complexities of climate-related risks, especially how this applies to communities most vulnerable to climate changes. City staff and regional representatives relayed such concerns as:

- Need of Philly inundation mapping. Our biggest struggle is public information: at all levels and sectors, we have not done a great job at communicating flood risk.
- People only think about their properties alone, not the streets and infrastructure that supports them: road flooding, salt intrusion...

- Up to date models and projections at a parcel level, decade by decade, to be able to answer 'for % of time this parcel of land will be under water' Statistics around 50- or 100-year floods are not meaningful; parcel-level data would be useful.
- Do better disease modeling and better/more quantifiable projections on disease burden. Would be great to plug in numbers about longer heat events and our own data to project number of ED visits and mortalities.
- More quantifiable projections of disease burdens on all four areas: heat, flooding, vectors, air quality.

As reflected in these notes, city staff and regional representatives are particularly attentive to

climate-related issues as framed in terms of emergency response and disaster management. As

Schlosberg, Collins, and Niemeyer (2017) posit a common way of thinking about and

articulating climate adaptation in the public realm is risk assessment and disaster management,

which assesses what the likely new dangers are, in particular in terms of infrastructure damage,

emergency management, and liability. While a risk assessment and disaster management focus

are pragmatic approaches for local governments, framing the issues in this way does not account

for the social, political, and economic impediments that perpetuate risk and vulnerability.

Without explicit recognition of such social, cultural, and institutional impediments in climate

adaptation and resiliency discourse, a tendency exists to reduce equity as a form of distributive

justice, or fair distribution of goods, instead of understanding specific conditions underlying poor

distributions (Schlosberg, 2004).

DISCUSSION

In general, the study's findings highlight an interest city, regional, and residential stakeholders to strengthen activities for place-based initiatives that both address and adapt to extreme weather conditions and climate changes. Yet, a closer review of the questions included in both the heat survey and the semi-structured interviews demonstrate a tacit effort of addressing climate adaptation and resilience as a technical problem, with procedural and distributional ways of addressing inequity, and not always as a social equity problem that also centers on recognitional inequities of residents to expose trade-offs that threaten a range of human capabilities and cultural values (Schlosberg, Collins, & Niemeyer, 2017).

As climate change has altered the landscape of many areas within cities, such tradeoffs in an attempt to address or adapt to climate change has resulted in residents losing more than their homes. They also lose a sense of place and community history. Thus, as more and more communities urge for a right to be heard, they, in turn, demand more than distributional and procedural interventions – they demand recognition. As such, explicitly prioritizing community engagement and participation though specific discourse contributes to the legitimacy of resident lived experiences as a form of expertise that critical in shaping climate-related practices and policies.

Climate resiliency discourse is contingent upon community expertise

Scholarship on equity in climate resilience planning goes beyond proposing material interventions (e.g. swimming pools, cooling centers) or "securitization" methods for residents that focus on the "urgent need to build-up physical or virtual defenses" (Meerow, Pajouhesh, & Miller, 2019; Thurber, 2017). It also explicitly frames community involvement as a requirement and not in general terms of how such stakeholders have engaged with "external partners" or their methods of "inclusive" planning processes. As Thurber and Christiano (2019) "more than

material intervention" frameworks for communities require an accounting for how an intervention takes place – for whom, under what conditions, and for what purpose.

As a result, such discourse on climate resiliency planning found in city survey questions either promulgates ambiguity concerning the necessity of community engagement and obfuscates potential trade-offs, or it does not account for the situative construction of identity, attachment, and agency that supports what residents do is in relation to what they have the power to do (Hand & Gresalfi, 2015; Meerow, Pajouhesh, & Miller, 2019). Often, interviewed stakeholders "came upon" salient themes of multiple stakeholders and community involvement, but survey questions did not make explicit the interconnectedness of social equity with resilience. Instead, recognition of communities most vulnerable to climate changes are assumed, or presumed, within distributive or procedural spheres of justice (Schlosberg, 2004).

As noted in the heat survey data, residents highlighted a concern of the impact that extreme weather events posed on the basic needs, cultural values, and capabilities of daily life. As reported by residents of the community:

- Heat is a particular challenge in my immediate neighborhood. In two to three block radius the lack of tree coverage for shade makes it very stressful being outdoors when the temperature is high. I find it less likely that neighbors have interactions due to being indoors. Fortunately, we have air conditioning units but many of my neighbors do not.
- High temperatures in the summer tend to keep our residents indoors, which decreases a sense of community among neighbors. The heat is also an important trigger for many residents who suffer from asthma or other respiratory problems. Overall, high temperatures do not only affect how it feels outside of people's homes but also plays a role in the overall safety of the community.

Within the context of the heat study, the selected response data reveal the ways in which lower income residents experience disparities that influence the neighborhood's effectiveness in improving safety and community wellbeing. Providing greater access to cooling centers, air

conditioners, or swimming areas will likely provide benefits to the residents of the community, but it does little to recognize the ideal needs for the particular community context to sustain itself, nor effectively address the underlying issue of the disparity for sustainability of the intervention. As Schlosberg (2004) explains, "if the interest is about attaining justice, rather than a sound theory of justice, recognition is central to the question and the resolution – and is not simply to be assumed" (p. 520). As such, recommendations to increase participation of underrepresented groups will include intentional strategies focused on multiple forms of justice (Low, 2017) (see Table 5.).

Table 5. *Adapted from Low's 5 realms of justice in public spaces*[6]

Characteristic of justice	Description	Overarching theme
Interactional	Mutual respect and reciprocity for open dialogue. Participants are open to evaluating and being influenced by others' arguments and perspectives	What makes people feel 'welcomed' to participate and fosters a sense of belonging? How is trustworthiness cultivated in community planning?
Procedural	Accessible information and resource materials. An opportunity to pose questions to competing experts or policymakers. Discussion around the "giving of reasons for or against positions"	How are people involved and feel about their influence in the design, operations, and programming in community spaces?
Distributive	Delegation of decision-making authority to participants	Who is included in the decision-making? Who has access to the space and how do they use this space?What is needed
Care	Social learning through discussion and story-telling; Experiencing the environment together.	How do people demonstrate care and understanding for space and each other?
Recognitional/ Representational	Historical classed, racialized policies affecting place; Place-based attachments; Community cultural wealth	Is resident history and culture represented in space for meaningful relationships to place?

[6] Low's 5 realms of justice was used in Philadelphia's University District Urban Planning Model, https://justspacesproject.org/

It is important to note, however, that the Office of Sustainability does make intentional references to particular sections of the city that have experienced disinvestment due to racialized policies and practices. They have noted this in specific reports and studies (i.e., "Beat the Heat," Greenworks). While they intentionally recognize marginalization and inequities in order to critically evaluate policies through an equity lens, the disconnect is observed in various surveys and materials provided to communities that focus more on material interventions to address needs and concerns. In other words, interventions seek to aid a community, not necessarily reinforce resilience. As Lilla Anderson notes, if you are coming to <u>help</u> me, you are wasting your time. While such actions and discourse address gaps in communities, they also minimize characteristics of resident-led, community-engaged scholarship that seeks to anchor knowledge within the community for deliberate preservation of a community's culture. Thurber and Christiano (2019) highlight various forms of "more than material" interventions that also account for multiple realms of justice to address concerns, questions, or needs (see Table 6.).**Table 6**.

Thurber & Christiano (2019) "More than material" interventions framework

	CREATIVE PLACEMAKING	PUBLIC PEDAGOGY	PUBLIC SCIENCE	COMMUNITY ORGANIZING
Looks to:	Place-based artistic/humanities practices	Facilitated teaching/ learning	Systematic inquiry	Mobilization of community members
Engages residents as:	Artists and/or audiences	Teachers and/or learners	Researchers and/or research subjects	Community Leaders
Sample strategies:	• media campaigns • dance/ performance • installation art • street festivals • alternative tours • counter-mapping	• skill-building workshops • public history workshops • portable exhibitions • resident story-sharing sessions	• participatory or street surveys • focus groups • participatory excavation • archival, policy, web-based analysis	• door-knocking • networking • leadership development • policy analysis • power-mapping • public events and/or social actions

RECOMMENDATIONS

"It told us things already known, suggested things that would not work, and made careers for
people who already had jobs."
~Linda Tuhiwai Smith[7]
On research conducted in Indigenous communities

Well-meaning, and well-intended ways of addressing inequities across communities has

often focused on "filling the gap" of need by intervening stakeholders. While this is necessary, it

is often insufficient on its own. Providing parks, cooling centers, city access to pools are

important interventions, but without a way to sustain these interventions, a community, in the

long-term, is not benefited. Further, it does little to recognize how the community engages with

the issue to develop long-term change. Instead, engaging the community and increasing

engagement across communities offers an opportunity to surface more meaningful interventions

based on resident understandings and experiences with the issue.

The following text highlights a phased approach for answering the study's research

question of increasing engagement of underrepresented groups for civic activism. Where

appropriate, operational questions outlined in the Methods section of this capstone are aligned to

specific recommendations and actions.

Stages of Increasing Engagement of Underrepresented Groups for Civic Activism:
*Situating Resident Leadership: Moving Beyond Damage Narratives & Material Intervention
Frameworks*

In the fall of 2009 for the *Harvard Educational Review*, Eve Tuck published an open

letter to communities that called upon those in the fields of Social Science, Education, and

beyond to consider the impact of 'damage-centered' research. She writes:

> I write this letter to communities—primarily Native communities and/or urban
> communities—that have troubled relations with research and researchers. The trouble
> comes from the historical exploitation and mistreatment of people and material. It also

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[7] Smith, L.T. (1999). *Decolonizing methodologies: Research and Indigenous peoples*. London, UK: Zed Books.

comes from feelings of being overresearched yet, ironically, made invisible. [...]. For many of us, the research on our communities has historically been damage centered, intent on portraying our neighborhoods and tribes as defeated and broken (pp.411-412).

Through Tuck's critical reflection, many researchers and practitioners were – and still are - called into question for this damage-centered portrayal of communities typically targeted for oppression and marginalization. Tuck (2009) continues to prompt readers to expose if the benefits to such research actually outweigh the longstanding costs faced by communities and, to that end, the ethical considerations about what is made public and what is kept private, or sacred.

Often, such communities that have experienced historical disinvestment and dispossession are described as "disadvantaged" or "at risk" for what they lack in terms of economic wealth, education level, and social capital/social mobility, instead of recognized for fostering additional forms of wealth (familial, navigational, aspirational, etc.) that develop in spite of or in response barriers biased systems (Yosso, 2005). As Tuck notes in her open letter, this one-dimensional assumption extends to frame entire communities as "depleted, ruined, and hopeless" (p. 409). What is especially dangerous about this portrayal is that it centers on gaps and needs of communities to be addressed, or "helped," through service, instead of understood and supported through partnership.

Similarly, Yosso (2005) highlights this issue in her work ,"Whose culture has capital? A critical race theory discussion of community cultural wealth." With her research, she describes that while Chicanas/os are often cited for low educational outcomes, studies, often, fail to note that data collected from parents and guardians of such students routinely emphasize "consistently high aspirations for their children's future" (p. 78). Such examples serve as indicators of aspirational capital that exist within families, or family-like relationships, engenders a belief in possibilities beyond present circumstances. Frequently, however, such information is placed to

the side when developing solutions to address issues within communities. What is documented, often, is failure – what is not working and why.

Yosso's (2005) research on the cultural wealth fostered in communities of color highlights six forms of wealth, or capital (see Figure 11.), that communities possess for creative ingenuity and preservation despite resistance and adversity. Recognizing that such forms of capital exist within communities of color – and moving away from damage-centered frameworks - opens new doors for deeper connections and relationships with individuals in communities that may further spark interest by members for participation and change. Through the recognition of cultural wealth, researchers and practitioners, instead, value the accumulated assets that already exist in communities and work with members toward sustainable solutions (Yosso, 2005). As such, recognizing value in a community's cultural wealth serves as a central component for democratization of participation among underrepresented groups and transforms institutions at its core to highlight realms of justice for authentic, inclusive, participatory collaboration.
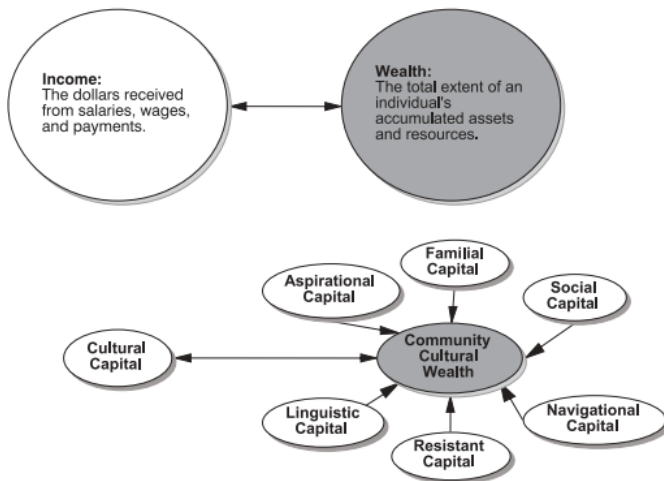

Figure 11. *Yosso's (2005) Adaptation of Oliver & Shapiro's (1995) Community Cultural Wealth*

Consistent with the findings for this study, the effects of urban, climate resiliency planning can bear incredible burdens and losses for communities. Even when community

interventions take form in procedural and distributive forms of justice, the material interventions that may result do little to address the systemic inequalities and disenfranchisements of communities. Broader conceptualizations of justice are required to engage the public equitably and authentically (Low, 2017). As such, a "more than material" framework of interventions such as creative placemaking, public pedagogy, public science, and community organizing are used for the following objectives and recommendations in recognizing the assets within communities to expand social ties and protect place-based attachments (Thurber & Christiano, 2019).

Residents as Experts: Recognize and catalyze ideas

- Operational Question: What factors strengthen resident leadership in the context of civic participation?
- Recommendation 1: Placed-based, critical learning initiatives/action research
- Action: Resident co-designed, community-engaged research centered in cultural wealth and public pedagogies as part of urban resilience planning.

Often understood as facilitated learning outside of formal school environments, public pedagogies offer an opportunity for individuals to reflect on their lived experiences in an effort to learn from each other (Thurber & Christiano, 2019). Public pedagogies consist of action and reflection that, for Freire (1993), create "praxis" that engender systems and structured to become transformed. Though praxis individuals targeted for marginalization and oppression create new histories as "historical-social beings" for liberation and change (Freire, 1993). In this way, such individuals are not 'integrated' into society as much as society is transformed to intentionally recognize and represent their lived experiences and emotional ecosystems (Lipsitz, 2007) in solutions for change.

As such, liberatory and transformational public pedagogies traced to Paulo Freire and Jack Mezirow that focus on individuals' "ways of knowing" through examination of lived experiences serve to challenge formerly-held ideas and assumptions and reconstruct knowledge and practices

for specific contexts (Mezirow, 2000). Learning, as noted by Mezirow, is "transformational" process moving across contextual dimensions that highlight knowing, consistent to Freire frameworks, through a dialogical process to oneself and with others, inspiring continuous learning and deeper connections with others (pp. 160-163). Thus, public pedagogies transform how people feel about and understand themselves, their neighborhood and neighbors through engaged practices such as story-telling, skill-building, and other participatory strategies. In essence, public pedagogies root in the realms of justice – expanding forms of representational, interactional, and care through community voice, credit, and respect.

Such strategies and public pedagogies are central to "community-based participatory action research" (CB-PAR) practices. CB-PAR outlines community-driven identification of place-based issues as well as possible solutions for change through investigation, research, data collection, and intervention action (Advancement Project Healthy City Lab, 2011). CB-PAR's intention is nestled in direct action formulated by grounded "truths" about the problem to assist in community understanding, transformation, and social change (Advancement Project Healthy City Lab, 2011, p.5). Yet, it is important to note that while CB-PAR focuses on community-led research for change, communities work in partnership with other key stakeholders. As a result, facilitating collaborative and equitable partnerships with Philadelphia city agencies, community-based organizations, as well as regional representatives is necessary to support the legitimacy of community CB-PAR projects and remains consistent with the Office of Sustainability's overall intentions for community involvement. As a result, as a community-engaged practice, CB-PAR practices offer a host of benefits and opportunities to engage residents in support of city-wide climate resiliency planning.

The Miami Model

Vulnerable to heat, hurricanes, storm surges, and flooding, the city of Miami's Climate Resiliency & Sustainability Office focuses on place-based efforts in communities for greater acceptance and adoption of resiliency planning initiatives (Department of Resiliency & Sustainability City of Miami, 2020). As part of their Resilient 305 strategy, the city of Miami relies on information provided by residents as well as other city stakeholders to identify the most severe climate challenges ("Miami Forever- Climate Ready 2020 Strategy," 2020, p.4).

In the development of an overall strategy, the city held community workshops to inform residents of issues as well as gather narrative accounts from residents to achieve better policies and strategies for climate resiliency (Mezirow, 2000). Consistent with ideas from Freire (1993), Miami sought to engage members in "dialogical cultural action" to initiate sustainable transformation and reconstruction (p. 139). As part of best practices, Miami's community workshops (see Appendix B. City of Miami Community Materials) were held outside of workday hours and accessible to various forms of public transportation. Resources and information provided to residents were translated in English, Spanish, and Creole – the dominant languages of the participating communities. Supported by community organizations in local areas, the city office also used various forms of communication to encourage resident participation, e.g. printed flyers, social media campaigns, as well as "word-of-mouth" communication.

While Miami's Resiliency and Sustainability Office focused on community-engagement workshops to gather insights for resiliency planning, they acknowledge an external partner, Catalyst Miami, as instrumental in community-based action research strategies offered through

Catalyst's 10-week resident leader program[8] that builds "coalitions of climate leaders" (Catalyst

Miami, "CLEAR," 2020). With success, the program continues to fund community-led efforts

for climate readiness. Nevertheless, the resources and materials provided by the city of Miami's

Resiliency and Sustainability offices provided some best practices for OOS in Philadelphia in

initiating discussions at the community-level for climate resiliency planning.

Expand Resident Networks: Build community collective efficacies for sustainable change

- Operational Question: What factors that build a community's capacity to promote and sustain place-based changes?

- Recommendation: Build resident networks.
- Action: Expand resident networks for community building and collective efficacy through knowledge-sharing practices

2(a). Philadelphia Neighborhoods Community of Practice (CoP)

Communities of Practice (CoP) frameworks situate learning as a social phenomenon that

incorporates individuals' experiences of "lived-in worlds" through legitimate peripheral

participation (Lave & Wenger, 1991, p. 35). The social practices that evolve as individuals

collaborate on areas of interest gives way to the development of a community of practice and, in

turn, contributes shared learning. As a catalyst for the development of shared learning,

purposefully-designed learning environments provide new ways for individuals to organize and

engage in meaningful topics. Further, as individuals increase "toward more intensive

participation" in these learning environments, individuals move from the periphery toward

increased agency and power (Lave & Wenger, 1991, p. 36). Thus, the intersection between

interests, expertise, and joint enterprise gives rise to a certain community that has developed

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[8] Catalyst Miami. (2020). CLEAR: Community leadership on the environment, advocacy, and resilience. Retreived from https://www.catalystmiami.org/clear.

opportunities for mastery experiences to enhance efficacy for change (Bandura, 1994; Greeno & Gesalfi, 2008).

As both members and membership evolve in CoP, over time, an individual's identity and sense of belonging also evolves as a "practitioner" within a space. Shifts in one's identity tend to serve as indicators for efficacy as one begins to form beliefs about their abilities and what they can do (Bandura, 1994). In terms of city-wide climate resiliency planning in Philadelphia, city residents, as leaders within their own communities, can engage with other residents of city neighborhoods to form a Network Neighborhood Community of Practice (CoP) to develop shared discourses, co-construct knowledge, and create climate-related solutions on a broader landscape. In doing so, residents begin to engage frequently in climate-related planning to build knowledge and responsibilities for action. Further, with additional experience, residents are positioned as "experts" on issues facing communities, which are essential characteristics in asset-based frameworks to build efficacy to effectuate change (Yosso, 2005; Tuck 2009; Bandura, 1995). Thus, as noted by Lave and Wenger (1991), identities of members shift over time through one's membership in a Community of Practice to increase knowledge, power, and opportunities for collaborative learning production.

2(b). Resident Participation in City-wide Climate Adaptation Working Group

Recommendations 1 and 2(a), provide a tiered approach to increasing resident knowledge, power, and agency for placed-based community change in climate resiliency planning initiatives. When intentionally built and structured, residents who participate in the neighborhood action research and the multi-neighborhood CoP experience dimensions of empowerment through knowledge, skill, and leadership development. With this experience, residents are better positioned for direct participation in the City's Climate Adaptation Working Group.

Traditionally, the Climate Adaptation Working Group was comprised of community organizations, city offices, and regional representatives, and some neighborhood representatives for shared governance in shaping climate and resilience policies for Philadelphia. As community scholars and practitioners, residents participating in local CB-PAR projects and the neighborhood network CoP are offered another entry point to build meaningful relationships with city representatives to share expertise as well as narrative reflections of how resiliency plans deeply affect their communities.

The proposed resident engagement model that outlines recommendations 1 and 2 as well as the specific affective aims that develop for residents at each level of participation are displayed in Figure 12.

OOS COMMUNITY ENGAGEMENT FRAMEWORK

Stages for Increasing Engagement

BANDURA, 1995; LAVE & WENGER, 1991
- EXPANDED SOCIAL TIES
- COLLECTIVE EFFICACY
- SENSE OF BELONGING

LOW, 2017; SCHLOSBERG, N.D.; SCHLOSBERG, COLLINS, & NIEMEYER, 2017
- EQUITABLE PARTICIPATION
- TRANSPARENT, SHARED GOVERNANCE
- CIVIC ACTIVATION

CITY OF PHILADELPHIA CLIMATE ADAPTATION WORKING GROUP

MULTI-NEIGHBORHOOD NETWORK, COMMUNITY OF PRACTICE

LOCAL RESIDENT-LED, COMMUNITY-ENGAGED SCHOLARSHIP

Office of Sustainability Community Engagement Framework

FREIRE, 1993; MEZIROW, 2000; YOSSO, 2015; THURBER, 2019
- PLACE-BASED ATTACHMENTS
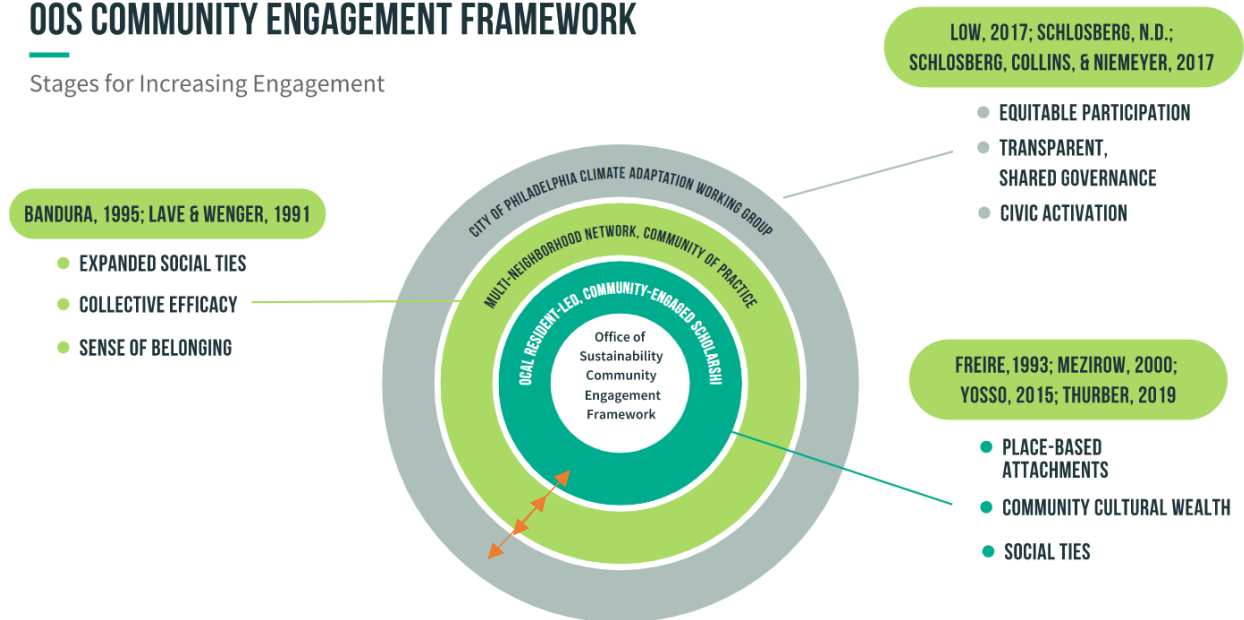- COMMUNITY CULTURAL WEALTH
- SOCIAL TIES

Figure 12. *Community Engagement Framework (Recommendations 1 & 2 for Community-Driven, Civic Activism)*

Inclusive Communication: Improve transparency and representation in City resources and materials

- Operational Question: To what extent do distributional, procedural, and recognitional forms of justice engage members of underrepresented groups for civic participation?
- Recommendation: Co-constructed, inclusive resources that recognize and account for relationships between people and place
- Action: Expand resiliency discourse for inclusive and just forms of communication to engage various audiences.

In her work, Spatializing Culture, Setha Low (2017) explains that in studies on urban restructuring and redevelopment, discourse analysis has frequently highlighted how planning efforts are often manipulated by municipal or other state authorities through specific discourse of codes and standards to change spatial meanings. Gee (2008) conceptualizes discourses as "ways of being in the world" and markers of how socially-situated identities emerge in contexts (p. 3). Yet, for Gee, an important distinction underscores discourse analysis in its difference between language in use, little "d" discourse (i.e., conversations, dialogue, stories, reports), and its ways of speaking and listening coupled with ways of acting and interacting that develop socially-specific identities in context as part of big "D" discourse (Gee, 2008, p. 155). Thus, when interacting and communicating, often it is more than just language and linguistics in operation– it is identity and ways of being in relation to ourselves, to others and to place. As such, municipal and city codes and standards are Discourse that serve as "the hidden language of space" that can obscure exclusionary practices in spaces (Low, 2017). By extension, then, city reports, resources, and policies adopt a "hidden language" that may inadvertently exclude members of communities or discourage involvement.

As mentioned in both the Findings and Discussion sections of this capstone, the City's key stakeholders, generally, focus on disaster and risk management discourses when discussing climate resiliency planning with external partners, including community members. Whether

materials were "too technical," "hard to read," or needed "to be revised" to portray the severity of current conditions to various audiences, interview participants in the City's scoping effort alluded to the ways in which current communications already, unintentionally, exclude community residents from fully participating in climate resiliency efforts. Further, such communication and resources, are typically generated independent of community members – almost to "take care of people" of those who are in trouble (Gee, 2008, p. 94). In communities vulnerable to classed, racialized, abled, and gendered systems, such information conveyed in particular discourse efface how "ways of knowing" take place in communities, and, along with it, how the community's cultural wealth contributes to fostering change.

A significant example of the importance in "ways of knowing and being" cultivated through Discourses is observed in the successful presidential campaign of Barack Obama in 2008. Obama's campaign in 2008 witnessed Black voter turnout within one percentage point of White voters, who traditionally have the highest voter turnout among all racial groups (Ray & Whitlock, 2019). Calling upon people to actively participate in the election, Obama used specific civic Discourse to build efficacy in communities – commissioning members as agents of change and relocating power. In his speeches, Obama localized civic responsibilities:

> I won't just ask for your vote as candidate; I will ask for your service and your active citizenship when I am president of the United States. This will not be a call issued in one speech or program; this will be a cause of my presidency. (Nabatchi & Leighninger, 2015, p. 62)

Although it is a common assumption that Black candidates increase Black participation in civic duties, frequently, however, what contributes to civic activation is that "Black candidates may do a better job of speaking to issues that affect Black communities" (Ray & Whitlock, 2019). Such

candidates, often, have lived experiences that resonate with those facing similar issues and are able to authentically communicate such experiences. Such civic participatory Discourses, as well, activate Low's other realms of justice (interactional, care, and representational/recognitional) to remove "hidden language" and increase participation from the public:

FORMS OF JUSTICE & CIVIC PARTICIPATORY DISCOURSES

Forms of Justice (Low, 2017)	Description	Overarching Theme	Civic Participatory Discourses (Adapted from Nabatchi & Leighninger, 2015)
Interactional	Mutual respect and reciprocity for open dialogue. Participants are open to evaluating and being influenced by others' arguments and perspectives	What makes people feel 'welcomed' to participate and fosters a sense of belonging? How is trustworthiness cultivated in community planning?	Mobilizing large numbers of participation through networked recruitment to develop cross-neighborhood, city-wide resources/documents/ resources (asset-mapping, multi-system support networks)
Care	Social learning through discussion and story-telling; Experiencing the environment together.	How do people demonstrate care and understanding for space and each other?	Giving individuals a chance to tell their stories in city resources and materials to capture community visions, personalized place-based context of issues and proposed solutions. City foundational documents (mission, vision, theory of change, etc.) incorporate community-driven insight.
Recognitional/Representational	Historical classed, racialized policies affecting place; Place-based attachments; Community cultural wealth.	Is resident history and culture represented in space for meaningful relationships to place?	Publicly giving individuals different ways to take action in creation and dissemination of resources – climate dashboards/apps, social media & gov't websites, advisory boards, tasks forces, crowdsourcing opportunities, community workshops.

Figure 13. *Forms of Justice Linked to Civic Participatory Discourses*

Thus, including underrepresented voices in the co-construction of climate-related resources and materials offers greater opportunities to not only capture information in a way that is useful to communities and document assets existing in communities, but it also works to engender agency and value for increased participation and interest in issues.

Secondary Analysis

Despite the insights gained from the secondary analysis of data, there are important limitations to discuss in terms of this project. First, as noted, these data were not collected for the purpose of this project. Instead, data were reinterpreted to expose emerging themes. Heaton (2003) contends that secondary analysis "can be used to generate new knowledge, new hypotheses, or support for existing theories" (p. 282). For this project, the data served the purpose to underscore new ideas and insights using a different lens. Yet, it is also significant to note that the use of secondary data does not discount the need to obtain more data for more specific, comprehensive analysis. In this way, it is recommended that the Office of Sustainability conduct more place-based research with communities to provide stronger conclusions for the problem of practice.

Narrowed scope

The project is limited in that it only included data for one extreme weather pattern (i.e., heat) in one targeted community of the city. Sections of Philadelphia also experience significant flooding and data continues to be collected by the City to more effectively understand the nature and effects of water overflow. This project did not discuss the data the City is currently collecting or discuss its outreach efforts in other communities or residential areas. Yet, it is important to emphasize that proposed recommendations should be able to provide a foundation of practice for residents to address any issue, i.e. climate-related or otherwise, in their communities – for all communities. As the recommendations provided as part of this capstone incorporate a shift in mindset, discourse, and practice, such changes require consideration what issues are being presented in a given context and how this may impact the broader system. Thus,

recommendations position residents with greater power by working closely with City offices for creating positive change across all Philadelphia communities.

Researcher Positionality

I am a Philadelphian. I was born and currently reside in the city. To this, I understand some of the troubling city's past as well as its conflicted present and hopeful future. I understand my upbringing under specific city policies that were unrelenting to my mother – a single-mother raising four daughters on a part-time, administrative assistant's salary. Nevertheless, I am also White. I do not experience the city, nor its policies, like Black and Brown Philadelphians. While I understand what it is like to not have the means, I do not fully understand what it is like to not be recognized. For this, I must account for my bias as a limitation as the only coder and researcher interpreting these data.

Fourth, the City, in its frameworks and resources, does acknowledge a community's history in noting the racialized policies and practices (i.e., redlining, etc.) communities have endured overtime. While the City cites and understands the importance of this history, it, in the resident surveys, targets more materials interventions to address the needs of the community. With good intent, the City is providing more resources and access to residents. It appears, however, to be helping residents. Instead, the current research focuses on highlighting and centering the wealth of the community as way to connect more deeply with residents of the community so they, not the City, can explore the most appropriate interventions that may go beyond or in conjunction with material and procedural interventions.

CONCLUSION

Growing up in a single-parent household in Philadelphia, I was always struck by the way in which our neighbors served as an extension of our family. Our neighborhood Block Captain, Mrs. Hatter, helped to organize the annual neighborhood block parties, community gatherings, and street clean-up activities. During snow storms, kids on the street banded together to help shovel sidewalks and dig out our neighbors' cars. For graduations and celebrations, neighbors gathered on porch fronts to offer well wishes to families. Naïvely, I thought all neighborhoods interacted this way.

When considering this capstone project, I thought about the strong social ties that developed within my neighborhood juxtaposed to aspects of growing up in the city, itself. I often think of it as experiencing "two worlds": one where our participation, as a family, mattered and one where it was often overlooked, viewed as "deficient" compared to two-parent families or in need of aid. When discussing this with my mother, we reflected on the financial and social challenges in just being able to keep our home, let alone satisfy any other outstanding debts. Although only on the cusp, we learned intimately that cycles of poverty caused by self-reinforcing systems are hard to break. Invariably, however, our community welcomed and loved us despite our vulnerabilities. When asked about why she participated so fervently in the neighborhood activities, my mother relayed, "because on the block, we were fundamentally human." In this context, to be seen and cared for was to, in turn, be deemed fundamentally human.

I cannot imagine my upbringing in Philadelphia without my neighborhood. The positive relationships formed and sustained in association to place served as the foundation for the future development of interpersonal networks within my life. On a small stage, I learned about

conceptually "big ideas" of how to navigate challenging systems, resist forms of bias, and develop positive bonds that would support my wellbeing. Although absent of access to other traditional forms of middle-class capital and hierarchies, I possessed social and cultural capital cultivated within my neighborhood to achieve upward mobility.

The resident survey responses that underscore the importance of social ties and attachments to place are consistent with research on the wellbeing of communities. As the foundation for her research, Thurber (2019) highlighted past scholarship that identified "strong ties among people, positive attachments between people, and the place they live" are among the distinguishing factors of healthy communities (p. 1). When the N. 9th Street Block Captain explained, "In Hunting Park, there are a lot of very loving people who would give you the shirts of their backs…," she identifies these strong social bonds and sense of place that further contribute to experiences of security and a sense of community.

With this study, we learn that residents most vulnerable to climate changes lose more than material belongings as a result of extreme weather. They lose their sense of place, sense of belonging, and kinship ties. Most dangerous, a community's cultural wealth is either threatened or effaced. As such, a "more than material" framework is needed to effectively engage residents systematically and continuously for change (Thurber 2019; Thurber & Christiano, 2020). It is not about integration – proffering changes that bring about 'feel-good' alternatives, or solutions that are most convenient. It is about transformative change that reconstructs climate resiliency planning at its core toward strengthening residents' ties to each other and attachments to place for more sustainable, equitable resiliency solutions. In this way and as a matter of justice, we are compelled to see others enduring vulnerabilities as fundamentally human.

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HUNTING PARK HEAT SURVEY

This is a survey to help us understand how you experience heat in the summer, and what things could help you stay cool in your home and your neighborhood. It is administered by the City of Philadelphia and its community partners North10 Philadelphia, the Lenfest Center, Esperanza, Hunting Park United, and Hunting Park NAC. Your answers are anonymous and will only be presented in summary form. Data from these surveys will be used to help bring cooling resources to the community. Thank you for taking a few minutes to share your experiences and opinions. You can also find the survey online at: www.bit.ly/hpheatsurvey

1. Is this your first time taking this survey?
- ❏ Yes
- ❏ No

2. How important of an issue do you think high heat is in your community?
- ❏ Very important
- ❏ Somewhat important
- ❏ Not too important
- ❏ Not an issue
- ❏ I don't know

3. When it is very hot outside, are you more likely to:
[Choose ONE]
- ❏ Leave your home
- ❏ Stay in your home

4. When it is very hot outside, how often do you feel too hot in your home?
- ❏ Always
- ❏ Sometimes
- ❏ Rarely
- ❏ Never [skip to question 6]

5. If you feel too hot in your home, which of these things might help you stay cool?
[Select all that apply]
- ❏ Access to fans & air conditioning
- ❏ Help with utility bills
- ❏ Help with home repairs to reduce air leaks
- ❏ More shade (e.g. better blinds & tree coverage)
- ❏ None of the above
- ❏ Other_____

6. When it is very hot outside, how often do you use air conditioning in your home?
- ❏ Always [skip to question 8]
- ❏ Sometimes
- ❏ Rarely
- ❏ Never
- ❏ I don't have A/C

7. What are the reasons you do not use or do not have air conditioning? [Select all that apply]
- ❏ Cost of air conditioning units
- ❏ Cost of electricity
- ❏ Hard to install air conditioning units
- ❏ Use a fan instead
- ❏ Do not need it
- ❏ Do not like it
- ❏ Other_____

8. Do you know what a cooling center is?
- ❏ Yes
- ❏ No

9. If you leave your home to stay cool, where are you most likely to go when it is very hot outside?
[Select all that apply]
- ❏ Sprayground
- ❏ Pool
- ❏ Park
- ❏ Library
- ❏ Church
- ❏ Recreation Center
- ❏ Senior Center
- ❏ Friend or neighbor's home
- ❏ Community organization_____
- ❏ Local business_____
- ❏ Other_____

10. When it is very hot outside, how likely would you be to go somewhere to stay cool:

	Very unlikely	Unlikely	Neither likely nor unlikely	Likely	Very Likely
If it were in your neighborhood	❑	❑	❑	❑	❑
If it were within a few blocks of your house	❑	❑	❑	❑	❑
If it offered activities	❑	❑	❑	❑	❑
If transportation were easy	❑	❑	❑	❑	❑
If you knew people there	❑	❑	❑	❑	❑

11. Which of these activities might convince you to leave your home to stay cool when it is very hot outside?
[Select all that apply]
- ❑ Sports
- ❑ Games
- ❑ Swimming
- ❑ Music
- ❑ Food
- ❑ Classes
- ❑ Movie screenings
- ❑ Laptops for public use
- ❑ Free wifi
- ❑ Other_____

12. These things can help bring te mperatures down in your neighborhood. Which might you like to see more of on your block? [Select all that apply]
- ❑ Tree plantings
- ❑ Gardens and green space
- ❑ Cool roofs (painting many rooftops on one block with a white paint that reflects heat)
- ❑ None of the above
- ❑ Other_____

13. Is there anything else you would like to share about problems with heat in your neighborhood or what might help you and your neighbors stay cool?
_____
_____
_____
_____
_____
_____
_____

14. Have you heard about any of these resources?
[Select all that apply]
- ❑ PCA Heatline
- ❑ ReadyPhiladelphia Alert System
- ❑ Utility Assistance Programs
- ❑ TreePhilly
- ❑ None of the above

15. In general, which of these things are major concerns on your block? [Select all that apply]
- ❑ Trash/dumping
- ❑ Vacant property
- ❑ Public Transportation
- ❑ Lighting
- ❑ Traffic
- ❑ Basement flooding
- ❑ None of the above
- ❑ Other_____

16. In general, what are your main sources of information in your community? [Select all that apply]
- ❑ Neighbors
- ❑ Block captain or community leader
- ❑ Social media [Twitter, Facebook, etc.]
- ❑ Community organizations_____
- ❑ TV, radio, or newspaper_____
- ❑ Other_____

17. What is your age?_____

18. What is your zip code?_____

19. Optional: What is your block (e.g. 3900 N.10th)?_____

CLIMATE READY MIAMI
NEIGHBORHOOD WORKSHOPS

**Hosted by the City of Miami
Office of Resilience & Sustainability**

Miami and its neighborhoods face growing challenges with flooding, heat, and hurricanes. Join us for a community meeting on the Climate Ready Miami strategy, and help set priorities for the City's future.

All workshops run from 6:30-8:30 p.m. Food and childcare will be provided. Interpretation of Haitian Creole and Spanish will be available at select workshops. Each workshop will include information about neighborhood-specific climate vulnerabilities.

Monday, July 29	Thursday, Aug. 15	Thursday, Aug. 22
Elizabeth Virrick Park	*Little Haiti Cultural Complex*	*Jose Marti Park Gym*
Focus: Coconut Grove	*Focus: Little Haiti and the Upper East Side*	*Focus: Little Havana, Downtown and Brickell*
Tuesday, Aug. 27	Thursday, Sept. 5	Monday, Sept. 16
Shenandoah Park	*Village of Allapattah YMCA*	*West End Park*
Focus: Coral Way neighborhoods including The Roads	*Focus: Allapattah*	*Focus: Flagami, West Flagler and Grapeland Heights*
Thursday, Sept. 19		Monday, Sept. 23
Charles Hadley Park		*Williams Park*
Focus: Liberty City/Model City		*Focus: Overtown, Wynwood and Edgewater*

For a full schedule or more information, go to *www.climatereadymiami.com* or contact the Office of Resilience & Sustainability at 305-416-1034 or resilience@miamigov.com

Climate Ready Miami *www.climatereadymiami.com*
Learn more about Miami's specific vulnerabilities to climate change and our efforts to date to address them.

The Miami Foundation

funders' network
FOR SMART GROWTH AND LIVABLE COMMUNITIES

PREPARASYON POU KLIMA MIAMI
KATYE ATELYE

Òganize pa Biwo Rezilyans ak Dirabilite Vil Miami

Miami ak katye li yo ap fè fas ak pwoblèm k ap grandi ak inondasyon, chalè ak siklòn. Jwenn nou pou yon reyinyon kominotè sou estrateji Klima Miami, epi ede mete priyorite pou lavni Vil la.

Tout atelye kouri de 6: 30-8: 30 p.m. Yo pral bay manje ak gadri gratis. Entèpretasyon kreyòl ayisyen ak panyòl ap disponib nan reyinyon yo chwazi. Chak atelye ap gen ladan enfòmasyon sou katye-espesifik frajilite klima.

Lendi, 29 jiyè	Jedi, 15 out	Jedi, 22 out
Elizabeth Virrick Park	*Little Haiti Cultural Complex*	*Jose Marti Park Gym*
Focus: Coconut Grove	*Focus: Little Haiti and the Upper East Side*	*Focus: Little Havana, Downtown and Brickell*
Madi, 27 out	**Jedi, 5 septanm**	**Lendi, 16 septanm**
Shenandoah Park	*Village of Allapattah YMCA*	*West End Park*
Focus: Coral Way neighborhoods including The Roads	*Focus: Allapattah*	*Focus: Flagami, West Flagler and Grapeland Heights*

Jedi, 19 septanm	Lendi, 23 septanm
Charles Hadley Park	*Williams Park*
Focus: Liberty City/Model City	*Focus: Overtown, Wynwood and Edgewater*

Pou plis enfòmasyon, ale nan *www.climatereadymiami.com* oswa kontakte Biwo pou Rezistans nan 305-416-1034 oswa resilience@miamigov.com

Preparasyon pou Klima Miami *www.climatereadymiami.com*
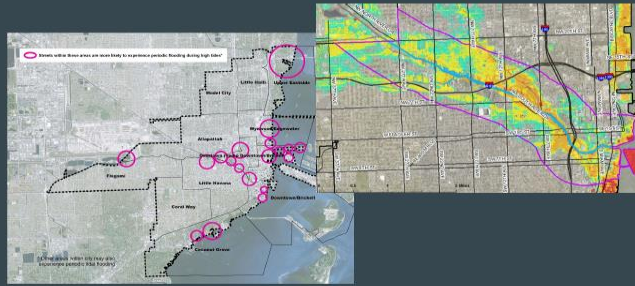Aprann sou frajilite espesifik Miami yo nan chanjman klima ak efò nou yok ap adrese yo.

The Miami Foundation

funders' network
FOR SMART GROWTH AND LIVABLE COMMUNITIES

Climate change increases risk from heat.

Flood and storm risk may impact insurance, property values.

Invest in resilient and smart public infrastructure

Promote adaptive neighborhoods and buildings

Inform, engage and prepare residents and businesses

Protect and enhance our waterfront